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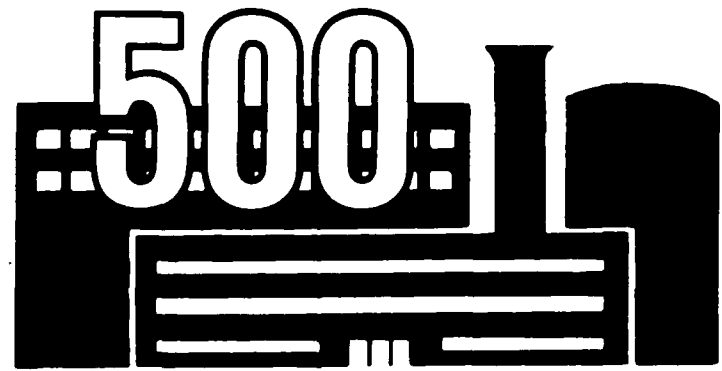
# 500 CONTRACTORS

RECEIVING THE LARGEST DOLLAR VOLUME  
OF PRIME CONTRACT AWARDS  
FOR RDT&E

Fiscal Year 1989

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# 500 CONTRACTORS RECEIVING THE LARGEST DOLLAR VOLUME OF PRIME CONTRACT AWARDS FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

Fiscal Year 1989

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## FOREWORD

*500 Contractors Receiving the Largest Dollar Volume of Prime Contract Awards for Research, Development, Test and Evaluation (RDT&E)* is published annually. This report provides information on the 500 contractors that received the largest dollar volume in Department of Defense (DoD) prime contract awards over \$25,000 for RDT&E. These data are presented in five tables showing:

1. An alphabetical listing of the top 500 companies, with rank;
2. The ranking and net value of awards to business firms operating in the United States;
3. The ranking and net value of awards to educational and other nonprofit institutions operating in the United States;
4. The ranking and net value of awards to foreign contractors; and
5. The ranking and net value of awards to U.S. government agencies.

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## INTRODUCTION

This report presents summary data on the 500 prime contractors receiving the largest dollar volume in Department of Defense (DoD) awards over \$25,000 for research, development, test, and evaluation (RDT&E) work during Fiscal Year (FY) 1989. RDT&E work can include research, exploratory development, advanced development, engineering development, operational systems development, or management and support services. (Full definitions for each of these categories are provided in DFARS 235.001.)

Table 1 (page 7) lists the 500 contractors in alphabetical order, shows the ranking for each, and shows how each has been categorized for reporting purposes. The categories are business firm (B), foreign contractor (F), and nonprofit institution (N). Table 2 (page 13) shows the net value of awards to U.S. business firms by rank. Those firms which qualify as small businesses are further identified by an "S". The net value of awards to each of the firm's reported locations is also provided. Tables 3, 4, and 5 (pages 29, 33, and 35, respectively) provide the net value of awards to U.S. educational and other nonprofit institutions, foreign contractors, and U.S. government agencies. (While awards to U.S. government agencies are listed separately in Table 5, these agencies are categorized as nonprofit institutions in Table 1.) As in Table 2, contractors in Tables 3 through 5 are shown by rank, with their total awards indicated by an asterisk (\*). The net value of awards to each of the contractor's reported locations are also shown for these tables.

## NOTES ON COVERAGE

The dollar amounts shown here include prime contract awards over \$25,000 for RDT&E work only. Data on awards for other services, such as training, and on any supplies furnished by the contractors in support of research being done are excluded. Contract awards for civil functions have been included in these data. Civil functions encompass planning, programming, designing, constructing, and operating Federal water resource projects for navigation, flood control, hydroelectric power production, water supply, and other related activities.

The locations shown in the tables are the places where the work was to be performed. Normally, this is a facility of the concern awarded the contract. However, if the work was scheduled to be performed at a Defense facility, such as an Air Force base, the location shown may be that of the Defense facility rather than the contractor.

DATA RELATING TO COMPANIES IN THIS PUBLICATION ARE SUBJECT TO THE ACCURACY OF THE DUN & BRADSTREET CORPORATION'S DATA UNIVERSAL NUMBERING SYSTEM AND ITS ABILITY TO DESCRIBE RELATIONSHIPS OF COMPANIES.

## HIGHLIGHTS

The following table shows the net value and percent distribution of all RDT&E awards, RDT&E awards to the top 500 companies, and all other RDT&E awards for FY 1989.

# Department of Defense Prime Contract Awards Over \$25,000 Fiscal Year 1989

TYPE OF CONTRACTOR	TOTAL RDT&E			TOP 500 RDT&E			ALL OTHER RDT&E		
	NUMBER	AWARDS (\$000)	% OF TOTAL \$	NUMBER	AWARDS (\$000)	% OF TOTAL \$	NUMBER	AWARDS (\$000)	% OF TOTAL \$
RDT&E - TOTAL	2,573	23,206,080	100	500	22,494,091	100	2,073	711,989	100
BUSINESS FIRMS	2,165	20,363,837	88	392	19,763,298	88	1,773	600,539	84
Small	1,646	1,363,167	6	175	890,577	4	1,471	472,590	66
Large	519	19,000,670	82	217	18,872,721	84	302	127,949	18
EDUCATIONAL & NONPROFIT	298	2,654,446	11	92	2,567,336	11	206	87,110	12
Educational	203	1,458,581	6	68	1,397,119	6	135	61,462	9
Other Nonprofit	95	1,195,865	5	24	1,170,217	5	71	25,648	4
U.S. GOVERNMENT AGENCIES	8	7,420	*	2	5,633	*	6	1,787	*
FOREIGN	102	180,377	1	14	157,824	1	88	22,553	3

\*LESS THAN 0.5 PERCENT

NOTE: TOTALS MAY NOT ADD DUE TO ROUNDING

Based on the percentage of total awards, the distribution of FY 1989 awards varies moderately from that in FY 1988. In FY 1989, the top 500 contractors included 392 U.S. business firms (175 of which were small businesses); 92 educational and nonprofit institutions; 2 U.S. government agencies; and 14 foreign contractors.

In FY 1988 the top 500 consisted of 377 business firms (174 were small businesses); 103 educational and nonprofit institutions; 3 U.S. government agencies; and 17 foreign contractors.

The top 500 RDT&E contractors received awards totaling \$22,494 million in FY 1989, compared to \$21,877 million in FY 1988, an increase of \$597 million or 2.7 percent. The \$22,494 million represents 96.9 percent of the \$23,206 million total prime contract awards over \$25,000 for RDT&E work in FY 1989.

In addition to the top 500 contractors, there were 2,073 other contractors for whom RDT&E procurement actions over \$25,000 were reported, for a total of 2,573 contractors in FY 1989. In FY 1988, the total number of contractors was 2,597.

Of the 36 contractors with RDT&E awards of \$100 million or more in FY 1989, 32 were business firms and 4 were educational and other nonprofit institutions. These 36 contractors had a total of \$17,109 million in RDT&E awards. In FY 1988, there were 37 contractors who reached the \$100 million plateau, with awards totaling \$16,512 million. Of these 37 fiscal year 1988 contractors, 32 were business firms and 5 were educational and other nonprofit institutions. The amount of awards for this \$100 million group increased by \$597 million or 3.6 percent between FY 1988 and 1989.

Breakout of the type of contractors receiving RDT&E awards are shown in the charts on the next page. Both of these charts show the number of firms with their associated percentages, and not the percentage of dollars.

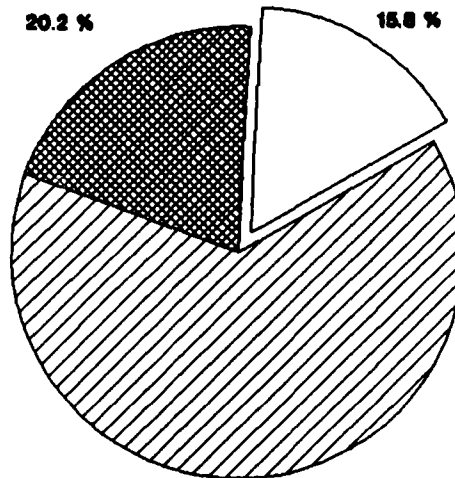
**TOTAL CONTRACTORS RECEIVING RDT&E DOLLARS**  
**Fiscal Year 1989**

**LARGE BUSINESS**

20.2 %

15.8 %

**OTHER**



**SMALL BUSINESS** 64.0 %

**TOTAL NUMBER OF FIRMS = 2,573**

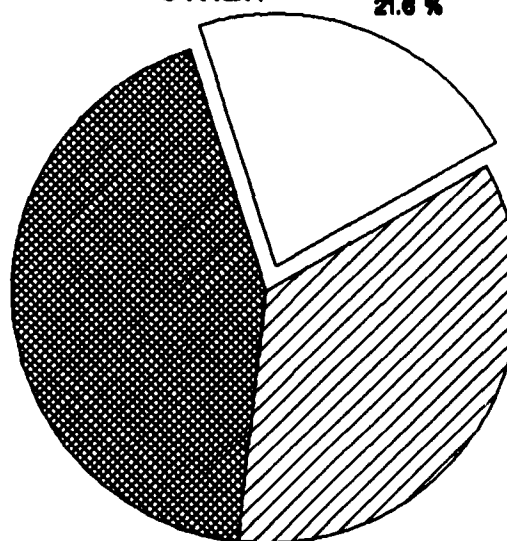
**TOP 500 CONTRACTORS - RDT&E**  
**Fiscal Year 1989**

**OTHER**

21.6 %

**LARGE BUSINESS**

43.4 %



**SMALL BUSINESS**

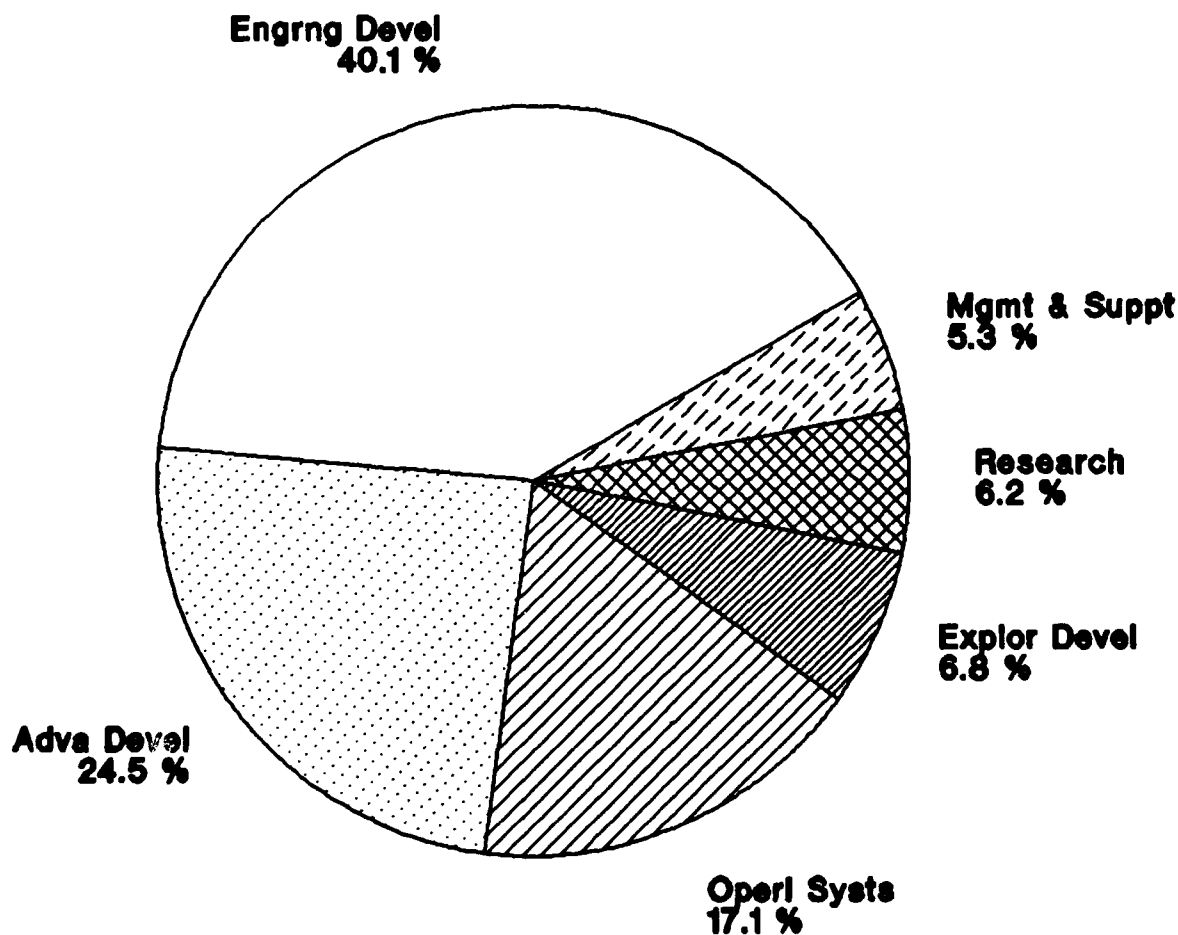
35.0 %

The following table shows the type of RDT&E work the contractors were engaged in and the net value and percent distribution of all awards for each of these types in FY 1989. Engineering development accounted for the majority (40.1 percent) of RDT&E awards, followed by advanced development (24.5 percent).

TYPE	AWARDS (\$000)	PERCENT OF TOTAL
RDT&E - TOTAL	<u>\$23,206,080</u>	<u>100.0</u>
Engineering Development	9,328,262	40.1
Advanced Development	5,674,073	24.5
Operational Systems	3,963,884	17.1
Exploratory Development	1,581,332	6.8
Research	1,428,702	6.2
Management and Support	1,229,827	5.3

## DOLLAR AWARDS BY TYPE OF RDT&E WORK

Fiscal Year 1989



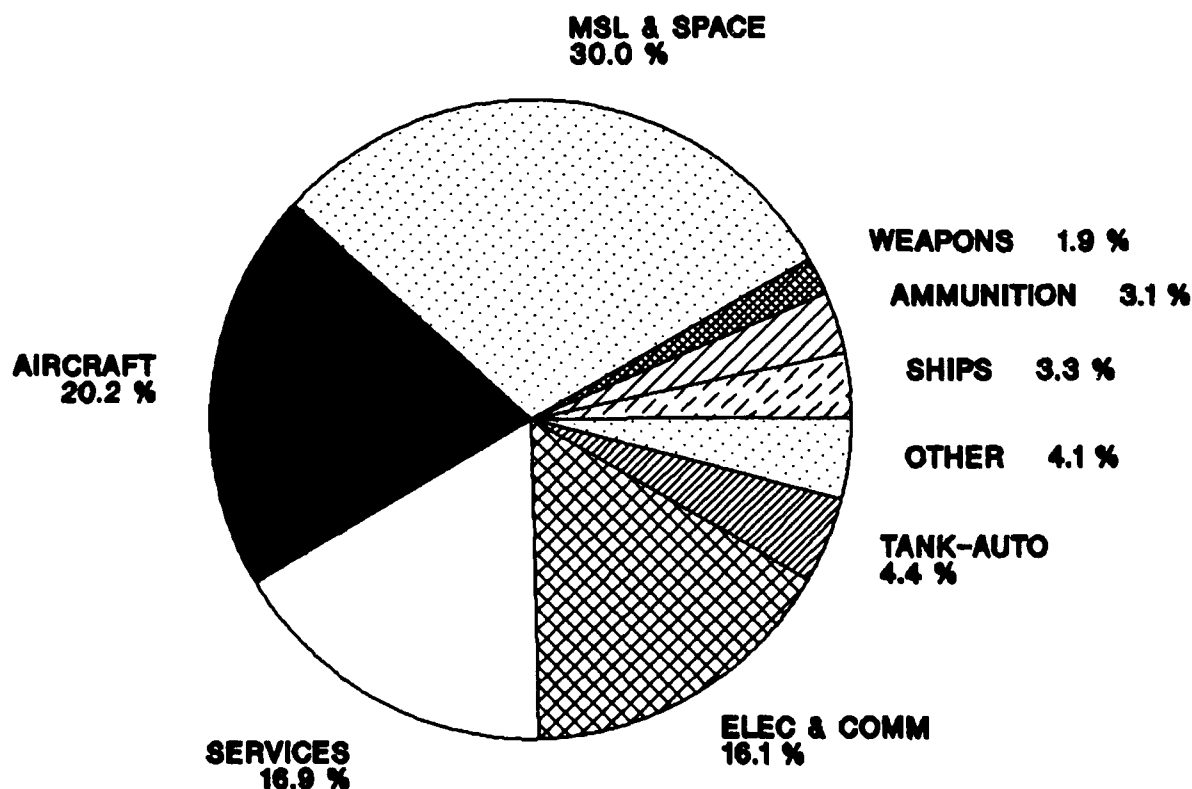


The last table shows the net value and percent distribution of all RDT&E awards by type of program. Within the RDT&E contracts, the largest volume of awards was for the research, development, test, or evaluation of missile & space systems and aircraft. In FY 1989, a combined total of \$11,652 million or 50.2 percent of all RDT&E awards over \$25,000 was for work connected with these programs.

PROGRAM	AWARDS (\$000)	PERCENT OF TOTAL
RDT&E - TOTAL	\$23,206,080	100.0
Missile & Space Systems	6,962,375	30.0
Aircraft	4,689,330	20.2
Electronics & Communication Equipment	3,743,548	16.1
Services	3,925,413	16.9
Ships	767,206	3.3
Ammunition	723,006	3.1
Weapons	430,252	1.9
Tank-Automotive	1,018,920	4.4
All Other	946,030	4.1

## RDT&E DOLLARS AWARDS BY TYPE OF PROGRAM

Fiscal Year 1989



**Table 1. Alphabetical Listing of the Top 500 DOD Prime Contractors for Research, Development, Test, and Evaluation Work: FY 1989**

RANK	*	CONTRACTOR	RANK	*	CONTRACTOR
120	B	A A I CORPORATION	457	B	B K DYNAMICS INC
497	B	A P A OPTICS INC	232	B	BABCOCK & WILCOX COMPANY THE
26	B	A T & T TECHNOLOGIES INC	67	B	BALL CORPORATION
106	B	ACUREX CORPORATION	88	N	BATTELLE MEMORIAL INSTITUTE
165	B	ADVANCED DECISION SYSTEMS	41	B	BDM INTERNATIONAL INC
395	B	ADVANCED RES & APPLICATIONS	169	B	BDM MANAGEMENT SERVICES CO
321	B	ADVANCED TECHNOLOGY & RESEARCH	269	B	BECHTEL NATIONAL INC
220	B	ADVANCED TECHNOLOGY INC	23	B	BELL BOEING JV
440	B	ADVANCED TECHNOLOGY SYSTEMS	177	B	BELL HELICOPTER TEXTRON INC
422	B	AERODYNE RESEARCH INC	284	B	BERKELEY RESEARCH ASSOCIATES
38	B	AEROJET	48	B	BOEING CO & SIKORSKY ACFT JV
119	B	AEROJET ELECTRO SYSTEMS	4	B	BOEING COMPANY THE
366	B	AEROLIFT INC	89	B	BOLT BERANEK & NEWMAN INC
234	B	AEROMET INC	108	B	BOOZ ALLEN & HAMILTON INC
21	N	AEROSPACE CORPORATION	281	N	BOSTON UNIVERSITY
475	B	AHNTech INC	254	N	BROWN UNIVERSITY
34	B	ALLIED SIGNAL AEROSPACE CO	236	B	BRUNSWICK CORPORATION
100	B	ALLIED SIGNAL INC	493	F	BUNDESAMT FUER WEHRTECHNIK
483	B	ALPHATECH INC	184	B	C A E INDUSTRIES LTD
186	B	AM GENERAL CORPORATION	115	B	C E OPERATIONS & MAINT SVC INC
421	N	AMERICAN SOC FOR ENGRG EDCTON	443	B	C V D INCORPORATED
170	B	AMERICAN SYSTEMS CORPORATION	354	B	C3CM TST ENGR
249	B	ANALYSIS & COMPUTER SYSTEMS	396	B	CACI INC
134	B	ANALYSIS & TECHNOLOGY INC	189	N	CALIFORNIA INST OF TECHNOLOGY
59	B	ANALYTIC SCIENCES CORP THE	290	B	CALIFORNIA RES & TECHNOLOGY
76	N	ANALYTIC SERVICES INC	44	B	CALSPAN CORPORATION
149	B	ANALYTICAL SYSTEMS ENGRG CORP	193	F	CANADIAN COMMERCIAL CORP
325	B	ANALYTICS INCORPORATED	58	N	CARNEGIE MELLON UNIVERSITY
239	B	ANALYTIX ELECTRONIC SYSTEMS	399	B	CARTWRIGHT ELECTRONICS INC
308	B	ANDRULIS RESEARCH CORP	311	B	CAS INC
318	B	APPLIED MEASUREMENT SYSTEMS	403	N	CASE WESTERN RESERVE UNIV
328	B	APPLIED RESEARCH ASSOC INC	124	B	CBI NA CON INC
233	B	APPLIED RESEARCH INC	447	B	CELCO TOOL & ENGINEERING
319	B	APPLIED TECHNOLOGY ASSOCIATES	404	F	CENTRE NATIONAL DETUDES SPATI
333	B	APTEK INC	438	B	CENTURY COMPUTING INC
307	B	ARETE ASSOCIATES	137	B	CHAMBERLAIN MANUFACTURING CORP
161	B	ARINC RESEARCH CORPORATION	196	B	CHRYSLER TECHNOLOGIES
335	B	ARMAMENT SYSTEMS INC	212	B	CINCINNATI ELECTRONICS CORP
131	B	ARMORED VHCLE TCHNOLOGIES ASSO	348	N	CLEMSON UNIVERSITY
190	B	ASP CONSORTIUM	171	B	COLEMAN RESEARCH CORPORATION
172	B	ASSURANCE TECHNOLOGY CORP	33	B	COLLINS INTERNATIONAL SVC CO
293	B	ATLANTIC AEROSPACE ELECTRONICS	332	N	COLORADO STATE UNIVERSITY
86	B	ATLANTIC RESEARCH CORPORATION	81	B	COLSA INC
339	F	ATM COMPUTER GMBH	206	N	COLUMBIA UNIVERSITY
374	N	AUBURN UNIVERSITY	181	B	COMARCO INC
253	B	AUTOMATED SCIENCES GROUP INC	450	B	COMPRHENSIVE TECHNOLOGIES INTL
356	B	AUTOMATION RES SYSTEMS LTD	329	B	COMPUTER RESOURCE ENGRG ASSOC
62	B	AVCO CORPORATION	37	B	COMPUTER SCIENCES CORPORATION
84	B	AVCO RESEARCH LABORATORY INC	109	B	CONTEL FEDERAL SYSTEMS INC
439	B	B D SYSTEMS INC	427	B	CONTRAVES GOERZ CORPORATION

\* B = Business Firm  
F = Foreign Contractor  
N = Nonprofit Institution

**Table 1. Alphabetical Listing of the Top 500 DOD Prime Contractors for Research, Development, Test, and Evaluation Work: FY 1989**

RANK	*	CONTRACTOR	RANK	*	CONTRACTOR
121	B	CONTROL DATA CORPORATION	387	B	EVALUATION RESEARCH CORP
150	N	CORNELL UNIVERSITY	414	B	FABEL SYS CORP
353	B	CROSS SYSTEMS INC	355	B	FEMTE COMP INC
316	B	CTA INCORPORATED	315	B	FIBERTEK INC
488	F	CULHAM LABORATORY	42	B	PMC CORPORATION
146	B	CUMMINS ENGINE COMPANY INC	28	B	FORD AEROSPACE COMMCTIONS CORP
452	B	DATA DESIGN LABORATORIES	200	B	FOSTER MILLER INC
385	B	DAVID SARNOFF RESEARCH CENTER	7	B	FOUNDATION HEALTH CORPORATION
351	B	DBA SYSTEMS INC	428	B	FRIED D L ASSOCIATES INC
264	B	DECISION SCIENCE APPLICATIONS	453	B	FRONTIER ENGINEERING INC
477	B	DECISION SCIENCE CONSORTIUM	93	B	G & F COMPANY
448	B	DEERE JOHN TECHNOLOGIES INTL	72	B	GENCORP INC
211	B	DEFENSE SYSTEMS INC	490	B	GENERAL APPLIED SCIENCE
361	B	DOSS AVIATION INC	130	B	GENERAL ATOMICS
275	B	DOW CHEMICAL COMPANY THE	3	B	GENERAL DYNAMICS CORPORATION
53	N	DRAPER CHARLES STARK LAB INC	166	B	GENERAL DYNAMICS WESTINGHOUSE JV
197	B	DRAVO CORPORATION	5	B	GENERAL ELECTRIC CO
336	B	DU PONT E I DE NMOURS COMPANY	260	B	GENERAL INSTRUMENT CORP DEL
271	N	DUKE UNIVERSITY	71	B	GENERAL MOTORS CORPORATION
369	B	DYNAMICS RESEARCH CORPORATION	82	B	GENERAL RESEARCH CORPORATION
270	B	DYNACORP	175	B	GEO CENTERS INC
216	B	DYNACORP APPLIED TECHNOLOGY	479	B	GEOODYNAMICS CORPORATION
215	B	DYNETICS INC	451	B	GEOMET INC
393	B	E C CORPORATION OF OAK RIDGE	77	N	GEORGIA TECH RESEARCH CORP
471	B	E I C LABORATORY INC	178	N	GEORGIA TECH RESEARCH INST
55	B	E SYSTEMS INC	390	B	GOULD INC
382	B	EAGLE PITCHER INDUSTRIES INC	12	B	GRUMMAN AEROSPACE CORPORATION
203	B	EAGLE TECHNOLOGY INC	191	B	GRUMMAN DATA SYSTEMS CORP
156	B	EARTH TECHNOLOGY CORPORATION	40	B	GTE GOVERNMENT SYSTEMS CORP
373	B	EASTMAN KODAK COMPANY	463	B	HADRON INC
61	B	EATON CORPORATION	437	B	HAMPSHIRE INSTRUMENTS INC
274	B	EBASCO SERVICES INCORPORATED	45	B	HARRIS CORPORATION
157	B	ECC INTERNATIONAL CORP	87	B	HARSCO CORPORATION
364	B	ECONOMICS TECHNOLOGY ASSOC	303	N	HARVARD UNIVERSITY
397	B	EDO CORPORATION	158	B	HAZELTINE CORPORATION
446	B	EG&G INC	52	B	HERCULES INCORPORATED
141	B	EG&G WASHINGTON ANALYTICAL SVC	248	B	HILTON SYSTEMS INC
430	B	ELECTRODYNAMICS INC	14	B	HONEYWELL INC
289	B	ELECTROMAGNETIC LAUNCH RES	244	B	HORIZONS TECHNOLOGY INC
391	B	ELECTRONIC ASSOCIATES INC	167	B	HUGHES AIRCRAFT & RAYTHEON JV
312	B	ELECTRONIC DECISIONS INC	15	B	HUGHES AIRCRAFT COMPANY
148	B	ELECTRONIC WARFARE ASSOCIATES	407	B	HUGHES ASSOCIATES INC
69	F	ELEKTRO RADIO KLEIN	255	B	HUGHES TRAINING SYS INC
386	B	EMERSON ELECTRIC CO	460	B	HYPRES INC
341	B	ENCORE COMPUTER CORPORATION	309	B	I A P RESEARCH INC
429	B	ENCORE CORPORATION	43	N	I I T RESEARCH INSTITUTE
378	B	ENGINEERING & PROF SVCS	367	B	I R T CORPORATION
164	N	ENVIRONMENTAL RESEARCH	323	B	I S T INC
420	B	EPOCH ENGINEERING INC	258	B	INNOVATIVE INFORMATION SYS
99	B	ESL INCORPORATED	65	N	INSTITUTE FOR DEF ANALYSES

\* B = Business Firm  
F = Foreign Contractor  
N = Nonprofit Institution

**Table 1. Alphabetical Listing of the Top 500 DOD Prime Contractors for Research, Development, Test, and Evaluation Work: FY 1989**

RANK	*	CONTRACTOR	RANK	*	CONTRACTOR
468	B	INTEGRAL SYSTEMS INC	177	B	M A COM LINKABIT INC
256	B	INTEGRATED SYSTEMS ANALYSTS	294	B	MAC AULAY BROWN INC
411	B	INTEL CORPORATION	102	B	MAGNAVOX GOVT & INDSTRL ELCTR
445	B	INTERACTIVE TV COMPANY	371	B	MANAGEMENT CONSULTING & RES
151	B	INTERMETRICS INC	442	B	MANDEX INC
24	B	INTERNATIONAL BUS MCHS CORP	218	B	MANTECH INTERNATIONAL CORP
423	B	INTERNATIONAL SOFTWARE SYSTEMS	273	B	MAR INCORPORATED
381	B	INTERSIL INC	201	F	MARTIN BAKER AIRCRAFT CO LTD
68	B	INTERSTATE ELECTRONICS CORP	1	B	MARTIN MARIETTA CORPORATION
320	B	INTRASPACE CORP	79	B	MARTIN MARIETTA DIEHL THORN JV
424	B	IRVINE SENSORS CORPORATION	159	B	MARTIN MARIETTA WESTINGHOUSE JV
153	F	ISRAEL AIRCRAFT INDUSTRIES	16	N	MASSACHUSETTS INST OF TECHNOLOGY
30	B	ITT CORPORATION	70	B	MAXWELL LABORATORIES INC
456	B	J W P INC	49	B	MCDONNELL DGLS BELL HEL TEX JV
435	B	JAMIESON SCIENCE & ENGINEERING	8	B	MCDONNELL DGLS GEN DYNAMICS JV
107	B	JAYCOR	155	B	MCDONNELL DOUGLAS ASTRONAUTICS
19	N	JOHNS HOPKINS UNIVERSITY	2	B	MCDONNELL DOUGLAS CORPORATION
66	B	JOHNSON CONTROLS INC	56	B	MCDONNELL DOUGLAS HELICOPTER
302	B	KAMAN AEROSPACE CORPORATION	283	B	MCDONNELL DOUGLAS INCO INC
116	B	KAMAN CORPORATION	96	B	MCDONNELL DOUGLAS TRNG SYS
73	B	KAMAN SCIENCES CORPORATION	352	B	MECHANICAL TECHNOLOGY INC
418	B	KDI PRECISION PRODUCTS INC	251	N	MERCER UNIVERSITY
50	B	KEARFOTT GUIDANCE NAVIG CORP	327	F	MESSERSCHMITT BOELKOW BLOHM
467	B	KESTREL INSTITUTE	360	B	METALWORKING TECHNOLOGY INC
322	B	KETRON INC	434	B	METRICA INC
379	B	KEYSTONE COMPUTER ASSOCIATES	357	N	MICHIGAN DEPT PUBLIC HEALTH
416	B	KNOWLEDGE SYSTEMS CONCEPTS	143	B	MILTOPE CORPORATION
398	B	KRUG INTERNATIONAL CORPORATION	90	B	MISSION RESEARCH CORPORATION
392	B	L GARDE INC	17	N	MITRE CORPORATION
494	B	LANXIDE CORP	27	B	MOTOROLA INC
219	B	LASER SYSTEMS & RSCH CORP	365	B	MIS SYSTEMS CORPORATION
376	B	LASER SYSTEMS LABORATORY	486	B	MULTI ELECTRIC MFG INC
444	B	LEADING SYSTEMS INC	346	B	N K F ENGINEERING INC
60	B	LIGHT HELICOPTER TURBIN ENG	305	B	NATION INC
194	B	LITTLE ARTHUR D INC	217	N	NATIONAL ACADEMY SCIENCES USA
317	B	LITTON INDUSTRIES INC	402	B	NATIVE AMERICAN SERVICE ASSN
25	B	LITTON SYSTEMS INC	123	N	NEW MEXICO STATE UNIVERSITY
22	B	LOCKHEED CORPORATION	380	N	NEW MEXICO INST OF MIN TECHNGY
142	B	LOCKHEED ELECTRONICS CO	384	N	NEW YORK UNIVERSITY
419	B	LOCKHEED ENGRG & MGT SVCS CO	230	B	NEWPORT NEWS SHPBUILDING DRYDOCK
13	B	LOCKHEED MISSILES & SPACE CO	80	B	NICHOLS RESEARCH CORPORATION
209	B	LOCUS INC	343	B	NORDEN SYSTEMS INC
97	B	LOGICON INC	262	N	NORTH CAROLINA STATE UNIV
394	B	LOGISTICS MANAGEMENT ENGRG	436	N	NORTHEASTERN UNIVERSITY CORP
128	N	LOGISTICS MGT INSTITUTE	32	B	NORTHROP CORPORATION
46	B	LORAL CORPORATION	425	N	NORTHWESTERN UNIVERSITY
210	B	LORAL ELECTRONIC SYSTEMS	363	N	NYSERNET INC
118	B	LORAL FAIRCHILD SYSTEMS INC	500	B	OCEAN DATA SYSTEMS INC
313	B	LOS ALAMOS TECHNICAL ASSOC INC	459	B	ODETICS INC
29	B	LTV AEROSPACE & DEF CO	350	B	ODYSSEY RESEARCH ASSOCIATES

\* B = Business Firm  
F = Foreign Contractor  
N = Nonprofit Institution

**Table 1. Alphabetical Listing of the Top 500 DOD Prime Contractors for Research, Development, Test, and Evaluation Work: FY 1989**

RANK	*	CONTRACTOR	RANK	*	CONTRACTOR
368	N	OHIO STATE UNIVERSITY	292	B	ROHM & HAAS COMPANY
370	N	OKLAHOMA STATE UNIVERSITY	101	F	ROLLS ROYCE INC
278	B	OLIN CORPORATION	160	F	ROYAL NORWEGIAN NAVAL MATERIAL
347	B	OPTOMETRICS INC	470	N	RUTGERS THE STATE UNIVERSITY
473	B	OPTRON SYSTEMS INC	208	B	S SYSTEMS CORPORATION
247	B	ORBITAL SCIENCES CORPORATION	145	B	SACHS FREEMAN ASSOCIATES INC
310	N	OREGON STATE UNIVERSITY	240	N	SALK INST FOR BLGICAL STUDIES
252	B	ORINCON CORPORATION	64	B	SANDERS ASSOCIATES INC
338	B	ORION INTL TECHNOLOGIES	496	B	SATCON TECHNOLOGY CORPORATION
409	B	ORLANDO TECHNOLOGY INC	112	B	SCHAFER W J ASSOCIATES INC
168	B	OSHKOSH TRUCK CORPORATION	474	B	SCIENCE & ENGINEERING ASSOC
476	B	P E I ASSOCIATES INC	485	B	SCIENCE & TECHNOLOGY ASSOC
226	B	PACCAR INC	372	B	SCIENCE & TECHNOLOGY CORP
222	B	PACER SYSTEMS INC	31	B	SCIENCE APPLICATIONS INTL CORP
173	B	PACIFIC SIERRA RESEARCH CORP	359	B	SCIENCE RESEARCH LABORATORY
126	B	PAR TECHNOLOGY CORPORATION	410	B	SCIENTIFIC RESEARCH ASSOC INC
261	B	PARSONS RALPH M COMPANY THE	408	B	SCOPE INCORPORATED
54	N	PENNSYLVANIA STATE UNIV THE	458	B	SEMA INC
114	B	PERKIN ELMER CORPORATION	250	B	SEMCOR INC
324	B	PHOTON RESEARCH ASSOCIATES	296	B	SIMULATION TECHNOLOGIES INC
433	B	PHYSICAL DYNAMICS INC	231	B	SIPPICAN INC
401	B	PHYSICAL OPTICS CORPORATION	117	B	SMITHS INDUSTRIES INC USA
243	B	PHYSICAL RESEARCH INC	187	B	SOFTTECH INC
288	B	PHYSICAL SCIENCES INC	214	B	SONALYSTS INC
122	B	PHYSICS INTERNATIONAL COMPANY	138	N	SOUTH CAROLINA RES AUTHORITY
144	B	PLANNING RESEARCH CORPORATION	265	N	SOUTHEASTN CTR ELECTR ENG ED
188	B	PLANNING SYSTEMS INCORPORATED	276	N	SOUTHERN METHODIST UNIVERSITY
279	B	PLESSEY DYNAMICS CORP	174	N	SOUTHERN RESEARCH INSTITUTE
417	N	POLYTECHNIC UNIV OF NEW YORK	330	B	SOUTHERN RESEARCH TECHNOLOGIES
492	B	PRESEARCH INCORPORATED	224	N	SOUTHWEST RESEARCH INSTITUTE
285	N	PRINCETON UNIVERSITY	152	B	SPACE APPLICATIONS CORPORATION
257	N	PURDUE UNIVERSITY	92	B	SPACE DATA CORPORATION
213	B	QUEST RESEARCH CORPORATION	91	B	SPARTA INC
304	B	QUESTTECH INC	154	B	SPARTON CORPORATION
95	B	R & D ASSOCIATES	246	B	SPIRE CORPORATION
491	B	R J O ENTERPRISES INC	63	N	SRI INTERNATIONAL
176	B	RACAL COMMUNICATIONS INC	163	B	SRS TECHNOLOGIES
105	F	RAM SYS GMBH	75	N	STANFORD LELAND JUNIOR UNIV
57	N	RAND CORPORATION	237	B	STANFORD TELECOMMUNICATIONS
9	B	RAYTHEON COMPANY	286	N	STATE UNIVERSITY OF NEW YORK
162	B	RAYTHEON SERVICE COMPANY	334	B	STATISTICA INC
498	B	RECON & OPTICAL INC	259	B	STERIMATICS CORPORATION
465	B	REMINGTON ARMS COMPANY INC	227	B	STERLING FEDERAL SYSTEMS INC
287	N	RENSSELAER POLYTECHNIC INST	139	B	STEWART & STEVENSON SERVICES
179	B	RESEARCH & DEV LABORATORIES	499	B	SUMARIA SYSTEMS INC
280	B	RESEARCH ANALYSIS & MAINT	180	B	SUNDSTRAND CORPORATION
198	N	RESEARCH TRIANGLE INSTITUTE	469	B	SUPERCONDUCTOR TECHNOLOGIES
185	N	RIVERSIDE RESEARCH INSTITUTE	47	B	SVERDRUP TECHNOLOGY INC
301	B	RMS TECHNOLOGIES INCORPORATED	464	B	SYGNETRON PROTECTION SYSTEMS
6	B	ROCKWELL INTERNATIONAL CORP	389	B	SYNDETIX INC

\* B = Business Firm  
F = Foreign Contractor  
N = Nonprofit Institution

**Table 1. Alphabetical Listing of the Top 500 DOD Prime Contractors for Research, Development, Test, and Evaluation Work: FY 1989**

RANK	*	CONTRACTOR	RANK	*	CONTRACTOR
267	B	SYNETICS CORPORATION	228	N	UNIVERSITY OF ARIZONA
199	N	SYRACUSE UNIVERSITY	51	N	UNIVERSITY OF CALIFORNIA
113	B	SYSCON CORPORATION	223	N	UNIVERSITY OF CENTRAL FLORIDA
266	B	SYSTEM DEVELOPMENT CORPORATION	462	N	UNIVERSITY OF CINCINNATI
205	B	SYSTEM DYNAMICS INC	345	N	UNIVERSITY OF COLORADO
331	B	SYSTEMS & ELECTRONICS INC	441	N	UNIVERSITY OF CONNECTICUT
466	B	SYSTEMS & LOGISTICS CORP	110	N	UNIVERSITY OF DAYTON
235	B	SYSTEMS & SIMULATIONS INC	298	N	UNIVERSITY OF FLORIDA
242	B	SYSTEMS PLANNING & ANALYSIS	484	N	UNIVERSITY OF HAWAII
132	B	SYSTEMS PLANNING CORP	125	N	UNIVERSITY OF ILLINOIS
263	B	SYSTEMS RES APPLICATIONS CORP	183	N	UNIVERSITY OF MARYLAND
104	B	SYSTEMS RESEARCH LABORATORIES	202	N	UNIVERSITY OF MASSACHUSETTS
449	B	SYSTRAN CORP	207	N	UNIVERSITY OF MICHIGAN
482	B	T S C INC	83	N	UNIVERSITY OF MINNESOTA
195	B	TACTICAL TRUCK CORPORATION	182	N	UNIVERSITY OF NEW MEXICO
268	F	TADIRAN ELECTRONIC INDUSTRIES	388	N	UNIVERSITY OF NORTH CAROLINA
495	B	TECHDYN SYSTEMS CORPORATION	229	N	UNIVERSITY OF PENNSYLVANIA
461	B	TECHNICAL & MGT SVCS CORP	426	N	UNIVERSITY OF PITTSBURGH
481	B	TECHNOLOGY DEVELOPMENT CORP	432	N	UNIVERSITY OF RHODE ISLAND
487	B	TECOLOTE RESEARCH INC	306	N	UNIVERSITY OF ROCHESTER
340	B	TELECOMMUNICATION SCIENCE ASSOC	85	N	UNIVERSITY OF SOUTHERN CALIF
35	B	TELEDYNE INDUSTRIES INC	74	N	UNIVERSITY OF TEXAS SYSTEM
299	B	TETRA TECH INC	337	N	UNIVERSITY OF UTAH
314	N	TEXAS A & M UNIV SYS THE	349	N	UNIVERSITY OF VIRGINIA
39	B	TEXAS INSTRUMENT M MARIETTA JV	103	N	UNIVERSITY OF WASHINGTON
36	B	TEXAS INSTRUMENTS INCORPORATED	300	N	UNIVERSITY OF WISCONSIN SYSTEM
489	N	TEXAS TECH UNIVERSITY	78	N	UTAH STATE UNIVERSITY
431	B	TEXTRON INC	405	B	VARIAN ASSOCIATES INC
342	B	TG BAUER ASSOCIATES	291	B	VECTOR RESEARCH COMPANY INC
400	B	THERMO ELECTRON TECH CORP	147	B	VEDA INCORPORATED
238	B	THINKING MACHINES CORPORATION	295	N	VIRGINIA POLYTECHNIC INST ST UNI
111	B	THIokol CORPORATION	455	B	VISIDYNE INC
375	B	TINSLEY LABORATORIES INC	98	B	VITRO CORPORATION
415	B	TITAN SYSTEMS INC	204	B	VITRONICS INC
362	B	TOYON RESEARCH CORP	225	B	VSE CORPORATION
94	B	TRACOR APPLIED SCIENCES INC	406	B	WADDAN SYSTEMS
472	B	TRACOR FLIGHT SYSTEMS INC	272	B	WALLACE & CO
413	B	TRUAX ENGINEERING	282	B	WALLACE T H INC
10	B	TRW INC	133	B	WATKINS JOHNSON COMPANY
480	B	TS INFOSYSTEMS INC	412	B	WEIDLINGER ASSOCIATES INC
245	B	UNION CORPORATION	478	N	WENTWORTH INST OF TECHNOLOGY
20	B	UNISYS CORPORATION	192	B	WESTERN INSTRUMENT CORPORATION
297	B	UNITED INTERNATIONAL ENGRG	136	B	WESTERN RESEARCH CORPORATION
135	F	UNITED KINGDOM MINISTRY OF DEF	11	B	WESTINGHOUSE ELECTRIC CORP
454	N	UNITED STATES DEPT ENERGY	377	B	WESTON ROY F INC
344	N	UNITED STATES DEPT OF COMMERCE	383	B	WILLIAMS INTERNATIONAL CORP
18	B	UNITED TECHNOLOGIES CORP	140	N	WOODS HOLE OCEANOGRAPHIC INSTITUTE
129	B	UNIVERSAL ENERGY SYSTEMS INC	358	B	WYLE LABORATORIES
241	B	UNIVERSAL TECHNOLOGY CORP	277	B	XONTECH INC
221	N	UNIVERSITY OF ALABAMA	326	N	YALE UNIVERSITY

\* B = Business Firm  
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**Table 2. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to Business Firms: FY 1989**

Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
1	MARTIN MARIETTA CORPORATION San Diego California Vandenberg AFB California Amity Colorado Denver Colorado Littleton Colorado Waterton Colorado Fort Walton Be Florida Orlando Florida Rolling Meadow Illinois Baltimore Maryland Bethesda Maryland Glen Burnie Maryland Halethorpe Maryland Lansdowne-Balt Maryland Middle River Maryland Albuquerque New Mexico Rome New York Fairfax Virginia Vienna Virginia GERMANY, F	1,991,995 * 100 1,341 19,535 1,760,958 19,159 695 262 127,505 400 50,653 5,298 1,446 553 55 2,610 1,010 99 35 250 31		GENERAL ELECTRIC CO Pittsfield Mass Camden New Jersey Cherry Hill New Jersey Moorestown New Jersey Princeton New Jersey Schenectady New York Syracuse New York Utica New York Cincinnati Ohio Horsham Penn King of Prussi Penn Philadelphia Penn Valley Forge Penn Warminster Penn Burlington Vermont Wallops Flight Virginia Seattle Washington Yona Marshall I	8,380 13,619 580 64,048 45,626 128,666 62,082 46,502 295,117 27 3,205 86,047 2,000 372 15,474 9,456 167 1,158
2	MCDONNELL DOUGLAS CORPORATION Huntsville Alabama El Segundo California Huntington Bea California Long Beach California Amity Colorado Patuxent River Maryland Sterling Heigh Michigan Berkeley Missouri St Louis Missouri Bethpage New York Bergstrom AFB Texas San Antonio Texas	1,711,232 * 8,833 47 172,416 1,317,828 11,479 72 737 2,583 196,252 85 860 40	6	ROCKWELL INTERNATIONAL CORP Amador California Anaheim California Concord California Downey California El Segundo California Los Angeles California San Bernardino California Santa Barbara California Seal Beach California Thousand Oaks California Colorado Sprin Colorado Duluth Georgia Norcross Georgia Cedar Rapids Iowa Albuquerque New Mexico Kirtland AFB New Mexico Columbus Ohio Tulsa Oklahoma Richardson Texas Shannon Texas	813,914 * 111- 174,285 100 54,701 148 509,202 20,796 1,002 4,493 10,922 895 12,969 1,348 3,983 52 12,097 405 689 5,589 349
3	GENERAL DYNAMICS CORPORATION Ontario California Pomona California Rancho Cucamong California San Diego California Groton Conn Bellwood Illinois Center Line Michigan Sterling Heigh Michigan Troy Michigan Warren Michigan St. Louis Missouri Lima Ohio Middletown Rhode Isl Fort Worth Texas Hartlingen Texas Arlington Virginia	1,177,574 * 23,047 29,832 1,907 181,226 54,082 400 4,198 164,938 122 2,845 3,593 631,086 303 78,369 695 931	7	FOUNDATION HEALTH CORPORATION Sacramento California	639,309 * 639,309
4	BOEING COMPANY THE Huntsville Alabama San Diego California Wichita Kansas Bend Oregon Philadelphia Penn Pomeroy Penn Ridley Penn Houston Texas Kent Washington Seattle Washington	905,446 * 95,642 299 32,046 500 4,619 50 692 90 80,273 691,235	8	MCDONNELL DGLS GEN DYNAMICS JV St. Louis Missouri Fort Worth Texas	620,000 * 200,000 420,000
5	GENERAL ELECTRIC CO Huntsville Alabama Williams AFB Arizona Daytona Beach Florida Mount Carmel Maryland Suitland Maryland Burlington Mass Fitchburg Mass Lynn Mass	903,154 * 64,660 5,750 205 7,225 143 4,453 15,975 22,217	9	RAYTHEON COMPANY Goleta California Oxnard California Cockeysville Maryland Andover Mass Bedford Mass Burlington Mass Lexington Mass Lowell Mass Marlborough Mass Norwood Mass Quincy Mass Sudbury Mass Teukensbury Mass Waltham Mass Wayland Mass West Andover Mass Portsmouth Rhode Isl Bristol Tennessee SPAIN	614,563 * 3,682 269 86 55,567 136,317 796 1,577 1,197 27,937 1,880 603 207,882 736 1,566 157,875 12,977 1,779 1,902 65-

- = Minus Amount (Cancellations Exceed New Awards)  
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Rank	Name of Contractor	Location of Work	Thousands of Dollars	Rank	Name of Contractor	Location of Work	Thousands of Dollars
10	TRW INC		577,676 *		HONEYWELL INC		
	Huntsville	Alabama	11,078		Albuquerque	New Mexico	21,307
	Los Angeles	California	1,403		Horsham	Penn	792
	Redondo Beach	California	322,715		West Chester	Penn	35
	San Bernardino	California	209,151		Springfield	Virginia	75
	San Diego	California	4,369		Bellevue	Washington	31
	Sunnyvale	California	253				
	New London	Conn	360	15	HUGHES AIRCRAFT COMPANY		411,818 *
	Warner Robins	Georgia	387		Huntsville	Alabama	1,960
	Bedford	Mass	197		Tucson	Arizona	6,658
	Boston	Mass	486-		Buena Park	California	3,124
	Albuquerque	New Mexico	72		Carlsbad	California	750
	Beavercreek	Ohio	1,594		Compton	California	1,500
	Dayton	Ohio	14,741		Culver City	California	230
	Wright Patters	Ohio	752		El Segundo	California	223,527
	Fairfax	Virginia	8,937		Fullerton	California	54,181
	Falls Church	Virginia	534		Goleta	California	32,048
	McLean	Virginia	1,619		Irvine	California	309
11	WESTINGHOUSE ELECTRIC CORP		520,451 *		Long Beach	California	103
	Sunnyvale	California	90,847		Los Angeles	California	69,787
	Annapolis	Maryland	203		Los Angeles Ai	California	197
	Baltimore	Maryland	104,740		Malibu	California	10,570
	Baltimore-Wash	Maryland	4,730		Newport Beach	California	648
	Chelsea Beach	Maryland	800		San Diego	California	921
	Cockeysville	Maryland	277		Torrance	California	3,535
	Linthicum	Maryland	420		West Covina	California	52-
	Linthicum Heig	Maryland	2,028		Des Plaines	Illinois	67
	Silver Spring	Maryland	377		Minneapolis	Minnesota	400
	Watertown	Mass	110		St. Anthony	Minnesota	409
	Melville	New York	109		Albuquerque	New Mexico	829
	Cleveland	Ohio	52,727		Dahlgren	Virginia	117
	Wright Patters	Ohio	308	18	UNITED TECHNOLOGIES CORP		354,382 *
	Borough	Penn	3,715-		San Jose	California	2,912
	Pittsburgh	Penn	11,770		Sunnyvale	California	260
	State College	Penn	34		East Hartford	Conn	12,822
	West Mifflin	Penn	254,686		Hartford	Conn	1,208
12	GRUMMAN AEROSPACE CORPORATION		519,884 *		South Windsor	Conn	1,723
	Edwards AFB	California	4,096		Stratford	Conn	2,146
	Melbourne	Florida	32,862		Windsor Locks	Conn	2,381
	Bethpage	New York	477,827		Country Club E	Florida	80,810
	Great River	New York	359		Flora	Florida	1,684
	Melville	New York	4,740		Kite	Florida	66
13	LOCKHEED MISSILES & SPACE CO		483,889 *		West Palm Beac	Florida	247,683
	Huntsville	Alabama	1,802		Dayton	Ohio	465
	Burbank	California	305		Fort Washingto	Penn	222
	Palo Alto	California	25,147	20	UNISYS CORPORATION		308,187 *
	Santa Clara	California	50		Glendale	Arizona	225
	Sunnyvale	California	443,428		Camarillo	California	250
	Mercury	Nevada	250		Clearwater	Florida	7,114
	Albuquerque	New Mexico	850		St. Paul	Minnesota	16,385
	Austin	Texas	12,057		Great Neck	New York	273,687
14	HONEYWELL INC		463,893 *		Dayton	Ohio	274
	Glendale	Arizona	272		Paoli	Penn	1,915
	Phoenix	Arizona	2,872		Trevoise	Penn	1,536
	Petaluma	California	1,300		Warminster	Penn	716
	San Diego	California	2,184		Salt Lake City	Utah	2,697
	Clearwater	Florida	16,520		Dahlgren	Virginia	627
	Lexington	Mass	42,986		McLean	Virginia	98
	Wilmington	Mass	385		Reston	Virginia	2,663
	Bloomington	Minnesota	5,912	22	LOCKHEED CORPORATION		292,283 *
	Brooklyn Park	Minnesota	8,326		Burbank	California	175,882
	Edina	Minnesota	8,038		Ontario	California	944
	Golden Valley	Minnesota	341		Palmdale	California	52,000
	Hopkins	Minnesota	258,291		Saugus-Bouquet	California	3,286
	Minneapolis	Minnesota	16,524		Sunnyvale	California	141
	Minnetonka	Minnesota	67,998		Marietta	Georgia	17,047
	New Brighton	Minnesota	162		Manchester	N.H.	2,315
	Plymouth	Minnesota	3,272		Merrinack	N.H.	248
	Roseville	Minnesota	50		Nashua	N.H.	42,642
	Twin Cities AA	Minnesota	382		Denville	New Jersey	166
	Eatontown	New Jersey	5,838		White Sands Ma	New Mexico	2,388-

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Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
23	BELL BOEING JV Fort Worth Texas	274,178 * 274,178	31	SCIENCE APPLICATIONS INTL CORP Huntsville Alabama	143,709 * 9,124
24	INTERNATIONAL BUS MCHS CORP San Jose California	252,227 * 699		Redstone Arsen Alabama	150
	Thousand Oaks California	9,050		Tucson Arizona	2,396
	Boulder Colorado	61,693		Herrnosa Beach California	7,340
	Denver Colorado	500		Irvine California	84
	Eglin Air Forc Florida	768		Los Angeles California	149
	Honolulu Hawaii	45		Newport Beach California	268
	Gaithersburg Maryland	42,668		Placentia California	3,176
	Owego New York	18,564		San Diego California	57,324
	Yorktown Heigh New York	1,725		Torrance California	6,854
	Oklahoma City Oklahoma	69		Colorado Sprin Colorado	45
	Houston Texas	655		Englewood Colorado	90
	Manassas Virginia	115,791		Washington D.C.	1,200
25	LITTON SYSTEMS INC Concord California	251,049 * 200		Fort Walton Be Florida	321
	Los Angeles California	21,277		Orlando Florida	394
	Mountain View California	250		Honolulu Hawaii	48
	San Jose California	534		Kailua Hawaii	895
	Sunnyvale California	6,724		Cambridge Mass	448
	Woodland California	110		Rochester Minnesota	715
	Colorado Sprin Colorado	212,484		Las Vegas Nevada	371
	South Windsor Conn	460		Salem N.H.	49
	Orlando Florida	1,471		Albuquerque New Mexico	1,223
	Atlanta Georgia	1,581		Rome New York	348
	Davenport Iowa	358		Dayton Ohio	7,628
	College Park Maryland	75		Wright Patters Ohio	750
	Morris Plains New Jersey	217		Wayne Penn	129
	Melville New York	343		Alexandria Virginia	300
	Williamsport Penn	240		Arlington Virginia	4,332
	Salt Lake City Utah	4,725		Dahlgren Virginia	130
26	A T & T TECHNOLOGIES INC Eatontown New Jersey	214,610 * 270	32	NORTHROP CORPORATION Anaheim California	142,496 * 1,394
	Hopewell New Jersey	179		El Segundo California	287
	New Providence New Jersey	935		Hawley California	248
	Whippany New Jersey	12,650		Hawthorne California	16,998
	Greensboro N Carolina	190,430		Palmdale California	118,850
	Allentown-Beth Penn	1,264		Palos Verdes P California	294
	Reading Penn	8,882		Pico Rivera California	1,120
27	MOTOROLA INC Phoenix Arizona	166,772 * 120		Rantoul Illinois	500
	Scottsdale Arizona	158,918		Rolling Meadow Illinois	1,692
	Tempe Arizona	7,266		Norwood Mass	1,113
	Baltimore Maryland	468	33	COLLINS INTERNATIONAL SVC CO Cedar Rapids Iowa	127,623 * 76,839
28	FORD AEROSPACE COMMCIONS CORP El Monte California	165,766 * 377		Richardson Texas	50,784
	Newport Beach California	7,497	34	ALLIED SIGNAL AEROSPACE CO Phoenix Arizona	116,159 * 5,918
	Palo Alto California	3,360		Los Angeles California	1,150
	San Jose California	92,734		Torrance California	9,604
	Sunnyvale California	6,218		Washington D.C.	595
	Colorado Sprin Colorado	45,438		Mishawaka Indiana	80
	Leavenworth Kansas	9,983		South Bend Indiana	829
	KOREA, REP	159		Baltimore Maryland	53,684
29	LTV AEROSPACE & DEF CO Camden Arkansas	157,577 * 35-		Cloverlea Maryland	500
	Dallas Texas	143,665		Columbia Maryland	37,621
	Grand Prairie Texas	13,947		La Plata Maryland	124
30	ITT CORPORATION Los Angeles California	143,915 * 18,068		St. Inigoes Maryland	1,910
	San Diego California	72		Towson Maryland	793
	Fort Wayne Indiana	10,715		Mercury Nevada	3,302
	Clifton New Jersey	620		Teterboro New Jersey	49
	Nutley New Jersey	112,356	35	TELEDYNE INDUSTRIES INC Huntsville Alabama	113,746 * 74,205
	Wright Patters Ohio	787		Hollister California	41
	Easton Penn	300		Palo Alto California	612
	Fort Worth Texas	614		San Diego California	20,430
	Roanoke Virginia	383		Santa Clara California	3,162
				Muskegon Michigan	12,269
				Toledo Ohio	1,815

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**Table 2. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to Business Firms: FY 1989**

Rank	Name of Contractor	Thousands of Dollars	Rank	Name of Contractor	Thousands of Dollars
	<b>TELEDYNE INDUSTRIES INC</b>			<b>CALSPAN CORPORATION</b>	
	Albany Oregon 120			Melbourne Florida 75	
	Garland Texas 67			Bedford Mass 55	
	Alexandria Virginia 1,025			Wayland Mass 30	
36	<b>TEXAS INSTRUMENTS INCORPORATED</b>	105,249 *		Buffalo New York 18,896	
	Ridgecrest California 5,141			Rochester New York 123	
	San Diego California 217			Springville New York 77	
	Colorado Sprin Colorado 417			Utica New York 50	
	Dallas Texas 72,941			Dayton Ohio 265	
	Dallas-Fort Wo Texas 123			Norristown Penn 323	
	Lewisville Texas 25,286			Pittsburgh Penn 75	
	McKinney Texas 999			Arnold AFS Tennessee 51,776	
	Sherman Texas 125		45	<b>HARRIS CORPORATION</b>	66,839 *
37	<b>COMPUTER SCIENCES CORPORATION</b>	89,444 *		Lauderhill Florida 250	
	Huntsville Alabama 4,689			Melbourne Florida 51,988	
	Camarillo California 20,573			Orlando Florida 3,949	
	San Diego California 7,042			Palm Bay Florida 2,787	
	Ventura California 7,500			Winter Park Florida 2,240	
	Fort Walton Be Florida 1,581			Omaha Nebraska 100	
	Moorestown-Len New Jersey 13,326			Rochester New York 1,275	
	Oceanport New Jersey 265			Syosset New York 4,250	
	Shrewsbury New Jersey 2,448		46	<b>LORAL CORPORATION</b>	66,145 *
	Albuquerque New Mexico 6,429			Litchfield Par Arizona 6,673	
	Huntingdon Val Penn 2,253			Milpitas California 289	
	Warminster Penn 1,060			Palo Alto California 186	
	Dahlgren Virginia 10,769			Pasadena California 6,857	
	Falls Church Virginia 11,509			Dania Florida 74	
38	<b>AEROJET</b>	83,494 *		Akron Ohio 52,066	
	Azusa California 46,674		47	<b>SVERDRUP TECHNOLOGY INC</b>	57,049 *
	Downey California 30,912			Wright Patters Ohio 917	
	Sacramento California 5,908			Arnold AFS Tennessee 54,892	
39	<b>TEXAS INSTRUMENT M MARIETTA JV</b>	82,350 *		Tullahoma Tennessee 1,240	
	Lewisville Texas 82,350		48	<b>BOEING CO &amp; SIKORSKY ACFT JV</b>	57,000 *
40	<b>GTE GOVERNMENT SYSTEMS CORP</b>	80,991 *		Philadelphia Penn 57,000	
	Mountain View California 1,191		49	<b>MCDONNELL DGLS BELL HEL TEX JV</b>	57,000 *
	Colorado Sprin Colorado 601			Mesa Arizona 57,000	
	Billerica Mass 15,867		50	<b>KEARFOTT GUIDANCE NAVIG CORP</b>	56,576 *
	Needham Mass 55,056			Little Falls New Jersey 48,015	
	Westborough Mass 6,032			Newark New Jersey 97	
	Vienna Virginia 130			Wayne New Jersey 8,464	
	Yona Marshall I 2,114		52	<b>HERCULES INCORPORATED</b>	55,251 *
41	<b>BDM INTERNATIONAL INC</b>	80,057 *		Clearwater Florida 4,300	
	Huntsville Alabama 25,572			Cumberland Maryland 948	
	Eglin Air Forc Florida 944			Magna Utah 19,114	
	Tyndall AFB Florida 1,150			Rocket Center W Virginia 30,889	
	Fort Knox Kentucky 675		55	<b>E SYSTEMS INC</b>	53,197 *
	Columbia Maryland 200			Saint Petersburg Florida 25,663	
	Albuquerque New Mexico 10,087			Warwick Rhode Isld 1,552	
	Arlington Virginia 60			Dallas Texas 19,150	
	McLean Virginia 40,457			Garland Texas 100	
	Norfolk Virginia 737			Greenville Texas 5,792	
	Springfield Virginia 175			Salt Lake City Utah 940	
42	<b>FMC CORPORATION</b>	79,333 *	56	<b>MCDONNELL DOUGLAS HELICOPTER</b>	51,766 *
	Anniston Alabama 542			Mesa Arizona 51,766	
	San Gregorio California 3,000		59	<b>ANALYTIC SCIENCES CORP THE</b>	48,836 *
	San Jose California 45,964			Mountain View California 627	
	Santa Clara California 18,767			Fort Walton Be Florida 3,352	
	Minneapolis Minnesota 11,060			Reading Mass 39,675	
44	<b>CALSPAN CORPORATION</b>	72,444 *		Fairborn Ohio 5,127	
	Auburn Alabama 35			Arlington Virginia 55	
	Tucson Arizona 46				
	Davis California 75				
	Del Mar California 99				
	Menlo Park California 198				
	Redondo Beach California 47				
	Denver Colorado 99				
	Norwalk Conn 100				

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**Table 2. Net Value of DOD Prime Contract Awards Over \$25,000  
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Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
60	LIGHT HELICOPTER TURBIN ENG St. Louis Missouri	47,926 * 47,926	79	MARTIN MARIETTA DIEHL THORN JV Orlando Florida	31,530 * 31,530
61	EATON CORPORATION El Segundo California Thousand Oaks California Westlake Villa California Beverly Mass Deer Park New York Deer River New York Melville New York	47,512 * 202 1,265 1,600 30 36,136 7,609 670	80	NICHOLS RESEARCH CORPORATION S Huntsville Alabama Albuquerque New Mexico White Sands Ms New Mexico	31,206 * 30,236 579 391
62	AVCO CORPORATION Stratford Conn Stratford AEP Conn Fort Walton Be Florida Lowell Mass Wilmington Mass	46,750 * 1,782 2,003 73 764 42,128	81	COLSA INC S Huntsville Alabama Jackson Rancho California El Paso Texas	30,504 * 18,918 11,254 332
64	SANDERS ASSOCIATES INC Hudson N.H. Manchester N.H. Merrimack N.H. Nashua N.H. North Bergen New Jersey	43,000 * 373 872 842 19,769 21,144	82	GENERAL RESEARCH CORPORATION Huntsville Alabama San Geronimo California Santa Barbara California McLean Virginia	30,406 * 11,507 30 16,123 2,746
66	JOHNSON CONTROLS INC Cape Canaveral Florida Mercury Nevada Yona Marshall I	41,103 * 25,026 360 15,717	84	AVCO RESEARCH LABORATORY INC Puunene Hawaii Everett Mass	29,430 * 11,063 18,367
67	BALL CORPORATION Anaheim California George AFB California San Diego California Boulder Colorado Broomfield Colorado Califon New Jersey Albuquerque New Mexico Kirtland AFB New Mexico Fairborn Ohio Wright Patters Ohio Bergstrom AFB Texas	38,284 * 288 1,413 9,359 20,973 527 250 2,815 525 190 1,745 199	86	ATLANTIC RESEARCH CORPORATION Camden Arkansas Los Angeles California Menlo Park California Rockville Maryland Severna Park Maryland Shrewsbury New Jersey Albuquerque New Mexico White Sands Ms New Mexico Bethpage New York Buffalo New York Niagara Falls New York Rome New York Syracuse New York Dayton Ohio Philadelphia Penn Warminster Penn Alexandria Virginia Arlington Virginia Charlottesville Virginia Fredericksburg Virginia Gainesville Virginia Vienna Virginia	29,148 * 174 230 300 4,152 1,030 2,986 3,235 97 399 150 146 2,969 32 262 1,212 97 3,059 134 30 2,569 5,199 686
68	INTERSTATE ELECTRONICS CORP Anaheim California	38,097 * 38,097	87	HARSCO CORPORATION York Penn	29,055 * 29,055
70	MAXWELL LABORATORIES INC Placentia California San Diego California Albuquerque New Mexico Richmond Virginia	36,493 * 27 34,595 1,676 195	89	BOLT BERANEK & NEWMAN INC Los Angeles California New London Conn Glenwood Maryland Cambridge Mass Arlington Virginia	28,645 * 934 953 200 26,522 36
71	GENERAL MOTORS CORPORATION Hampton Conn Indianapolis Indiana Troy Michigan Warren Michigan	36,221 * 593 22,649 40 12,939	90	MISSION RESEARCH CORPORATION S Santa Barbara California Colorado Sprin Colorado Washington D.C. Nashua N.H. Albuquerque New Mexico Dayton Ohio Alexandria Virginia Newington Virginia	28,348 * 20,451 293 182 1,746 5,186 246 44 200
72	GENCORP INC Nimbus California Sacramento California Sacramento Arm California Fort Walton Be Florida	34,068 * 167 33,610 105 186	91	SPARTA INC S Huntsville Alabama Del Mar California Edwards AFB California Laguna Beach California Laguna Hills California Placentia California	28,125 * 6,823 1,007 6,750 234 7,647 423
73	KAMAN SCIENCES CORPORATION Huntsville Alabama Santa Barbara California Santa Monica California Colorado Sprin Colorado Burlington Mass Albuquerque New Mexico Utica New York Alexandria Virginia Arlington Virginia	33,568 * 391 4,166 114 22,484 230 4,973 86 823 301			

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**Table 2. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to Business Firms: FY 1989**

Rank	Name of Contractor	Location of Work	Thousands of Dollars	Rank	Name of Contractor	Location of Work	Thousands of Dollars
	SPARTA INC			104	SYSTEMS RESEARCH LABORATORIES		22,842 *
	San Diego	California	2,281		Dayton	Ohio	12,437
	Lexington	Mass	230		Wright Patters	Ohio	9,324
	McLean	Virginia	2,730		San Antonio	Texas	1,081
92	SPACE DATA CORPORATION	S	28,069 *	106	ACUREX CORPORATION		22,239 *
	Tempe	Arizona	28,069		Mountain View	California	11,224
93	G & F COMPANY		26,695 *		Dayton	Ohio	4,475
	Santa Clara	California	26,695		Wright Patters	Ohio	6,540
94	TRACOR APPLIED SCIENCES INC		26,300 *	107	JAYCOR		21,556 *
	San Diego	California	293		Los Angeles	California	1,357
	San Ramon	California	194		San Diego	California	14,774
	Groton	Conn	1,013		Colorado Sprin	Colorado	272
	New London	Conn	276		Washington	D.C.	1,563
	California	Maryland	196		Edgewood Arsen	Maryland	228
	Laurel	Maryland	55		Vicksburg	Miss	63
	Rockville	Maryland	245		Dayton	Ohio	643
	Austin	Texas	24,028		Fairborn	Ohio	1,281
					Vienna	Virginia	1,375
95	R & D ASSOCIATES		26,209 *	108	BOOZ ALLEN & HAMILTON INC		21,459 *
	Marina del Ray	California	15,577		Huntsville	Alabama	1,380
	Alameda	California	150		Washington	D.C.	192
	Albuquerque	New Mexico	429		Bethesda	Maryland	16,071
	Kirtland AFB	New Mexico	7,091		Silver Spring	Maryland	36-
	Alexandria	Virginia	490		Tinton Falls	New Jersey	1,294
	Arlington	Virginia	190		Albuquerque	New Mexico	1,803
	Fort Lewis	Washington	93		Fort Worth	Texas	262
		GERMANY, F	2,189		Arlington	Virginia	493
96	MCDONNELL DOUGLAS TRNG SYS		26,155 *	109	CONTEL FEDERAL SYSTEMS INC		21,336 *
	Norman	Oklahoma	26,155		Colorado Sprin	Colorado	9,476
97	LOGICON INC		25,833 *		Gaithersburg	Maryland	11,659
	Los Angeles	California	15,660		Fairfax	Virginia	201
	San Diego	California	6,569	111	THIokol CORPORATION		20,824 *
	Bellevue	Nebraska	1,254		Huntsville	Alabama	2,107
	Albuquerque	New Mexico	1,821		Elkton	Maryland	4,270
	Wright Patters	Ohio	479		Brigham City	Utah	14,397
	Fairfax	Virginia	50		Corinne	Utah	50
98	VITRO CORPORATION		25,296 *	112	SCHAFER W J ASSOCIATES INC		20,823 *
	San Francisco	California	117		Chelmsford	Mass	17,696
	Bath	Maine	1,445		Wakefield	Mass	250
	Bethesda	Maryland	101		Arlington	Virginia	2,877
	Silver Spring	Maryland	15,338	113	SYSCON CORPORATION		20,273 *
	Sonoma	Maryland	51		Mobile	Alabama	80
	Pascagoula	Miss	854		San Diego	California	2,959
	Moorestown-Len	New Jersey	102		New London	Conn	150
	Warminster	Penn	545		Washington	D.C.	2,605
	Middletown	Rhode Isld	73		Middletown	Rhode Isld	461
	Dahlgren	Virginia	6,670		Naval Underwat	Rhode Isld	60
99	ESL INCORPORATED		24,506 *		Newport	Rhode Isld	568
	Sunnyvale	California	24,396		Austin	Texas	48
	Elizabeth City	N Carolina	110		Dahlgren	Virginia	12,963
100	ALLIED SIGNAL INC		24,150 *		Naval Surface	Virginia	379
	Phoenix	Arizona	176	114	PERKIN ELMER CORPORATION		19,826 *
	Los Angeles	California	380		Hayward	California	2,000
	Torrance	California	1,090		Pomona	California	100
	Des Plaines	Illinois	100		Danbury	Conn	12,991
	Mishawaka	Indiana	41		Norwalk	Conn	2,435
	Baltimore	Maryland	4,874		Wilton	Conn	2,300
	Morristown	New Jersey	261	115	C E OPERATIONS & MAINT SVC INC		19,432 *
	Teeterboro	New Jersey	17,149		Sierra Vista	Arizona	19,240
	Charlotte	N Carolina	79		Windsor	Conn	192
102	MAGNAVOX GOVT & INDSTR ELCTR		23,037 *				
	Torrance	California	898				
	Fort Wayne	Indiana	20,867				
	Mahwah	New Jersey	1,272				

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Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
116	KAMAN CORPORATION Bloomfield Conn New Britain Conn	19,362 * 14,297 5,065	134	ANALYSIS & TECHNOLOGY INC Groton Conn New London Conn New London Nav Conn North Stoningt Conn Panama City Be Florida Newport Rhode Isl Arlington Virginia Chesapeake Virginia	15,254 * 771 2,933 361 4,007 5,060 50 1,720 352
117	SMITHS INDUSTRIES INC USA Grand Rapids Michigan	19,201 * 19,201	136	WESTERN RESEARCH CORPORATION San Diego California	14,530 * 14,530
118	LORAL FAIRCHILD SYSTEMS INC Syosset New York Archbald Penn Horsesham Penn	19,126 * 11,979 6,772 375	137	CHAMBERLAIN MANUFACTURING CORP Niles Illinois North Aurora Illinois Waterloo Iowa Saco Maine Bethesda Maryland Cockeysville Maryland	14,412 * 237 35 8,000 2,918 446- 3,668
119	AEROJET ELECTRO SYSTEMS Azusa California	19,002 * 19,002	139	STEWART & STEVENSON SERVICES Houston Texas	14,186 * 14,186
120	A A I CORPORATION Cockeysville Maryland	18,760 * 18,760	141	EG&G WASHINGTON ALALYTL SVC New London Conn Rockville Maryland Salem Mass Kirtland AFB New Mexico Dahlgren Virginia	13,947 * 2,693 7,767 325 200 2,962
121	CONTROL DATA CORPORATION Rockville Maryland Bloomington Minnesota Minneapolis Minnesota	18,096 * 87 127 17,882	142	LOCKHEED ELECTRONICS CO Denville New Jersey Plainfield New Jersey White Sands Ms New Mexico	13,896 * 34 2,693 12,917
122	PHYSICS INTERNATIONAL COMPANY San Leandro California Andover Mass Woodbridge Virginia	17,921 * 17,259 268 394	143	MILTOPE CORPORATION Melville New York	S 13,886 * 13,886
124	CBI NA CON INC Oak Brook Illinois Memphis Tennessee	17,054 * 33 17,021	144	PLANNING RESEARCH CORPORATION Hickam AFB Hawaii Offutt AFB Nebraska Philadelphia Penn McLean Virginia	13,502 * 1,629 4,793 289 6,791
126	PAR TECHNOLOGY CORPORATION Los Angeles California Palo Alto California Redondo Beach California Santa Monica California Colorado Sprin Colorado Trumbull Conn Bellevue Nebraska Omaha Nebraska Bethpage New York New Hartford New York Rome New York Syracuse New York Utica New York Arlington Virginia McLean Virginia	16,524 * 67 120 209 232 4,874 447 55 453 350 6,905 936 748 504 99 525	145	SACHS FREEMAN ASSOCIATES INC Washington D.C. Bethesda Maryland Landover Maryland	S 13,437 * 10,818 126 2,493
127	M A COM LINKABIT INC San Diego California Vienna Virginia	16,414 * 12,295 4,119	146	CUMMINS ENGINE COMPANY INC Columbus Indiana	13,045 * 13,045
129	UNIVERSAL ENERGY SYSTEMS INC Dayton Ohio Wright Patters Ohio San Antonio Texas	S 16,072 * 15,287 620 165	147	VEDA INCORPORATED Fort Walton Be Florida Lexington Park Maryland Reading Mass Dayton Ohio Warminster Penn Alexandria Virginia Arlington Virginia	12,937 * 91 50 50 5,283 4,745 125 2,593
130	GENERAL ATOMICS San Diego California Albuquerque New Mexico	15,994 * 13,142 2,852	148	ELECTRONIC WARFARE ASSOCIATES Huntsville Alabama Dayton Ohio Vienna Virginia	12,823 * 7,750 232 4,841
131	ARMORED VHCL ECHNOLOGIES ASSO Troy Michigan	15,851 * 15,851	149	ANALYTICAL SYSTEMS ENGRG CORP Salinas California Westlake Villa California Melbourne Florida Clarksburg Maryland Laurel Maryland Burlington Mass Rome New York	S 12,110 * 201 218 479 434 450 9,879 142
132	SYSTEMS PLANNING CORP Santa Cruz California Arlington Virginia	15,703 * 2,587 13,116			
133	WATKINS JOHNSON COMPANY San Jose California	15,402 * 15,402			

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	ANALYTICAL SYSTEMS ENGRG CORP Dayton Ohio 220 Arlington Virginia 43 GERMANY, F 44		170	AMERICAN SYSTEMS CORPORATION Burlington Mass 2,147 Annandale Virginia 7,144 Chantilly Virginia 1,053	10,344 *
151	INTERMETRICS INC Huntington Bea California 1,666 Bethesda Maryland 1,093 Cambridge Mass 568 Oceanport New Jersey 3,400 Melville New York 33 Dayton Ohio 738 Warminster Penn 4,408	11,906 *	171	COLEMAN RESEARCH CORPORATION S Huntsville Alabama 10,134 * Orlando Florida 3,061	
152	SPACE APPLICATIONS CORPORATION S Santa Ana California 11,893 * Santa Clara California 1,570 10,323		172	ASSURANCE TECHNOLOGY CORP S Melbourne Florida 10,053 * Carlisle Mass 899 9,154	
154	SPARTON CORPORATION Fort Wayne Indiana 11,836 * Jackson Michigan 6,694 5,142		173	PACIFIC SIERRA RESEARCH CORP Edwards AFB California 10,030 * Los Angeles California 490 Santa Monica California 5,869 White Sands Ms New Mexico 1,655 Montague N Carolina 854 Arlington Virginia 50 1,112	
155	MCDONNELL DOUGLAS ASTRONAUTICS Titusville Florida 11,691 * St Louis Missouri 9,091 2,600		175	GEO CENTERS INC S Washington D.C. 10,002 * Edgewood Arsen Maryland 3,378 Natick Researc Mass 733 Newton Mass 259 Watertown Mass 5,161 Dover New Jersey 236 235	
156	EARTH TECHNOLOGY CORPORATION S Long Beach California 11,644 * 11,644		176	RACAL COMMUNICATIONS INC Rockville Maryland 10,000 * 10,000	
157	ECC INTERNATIONAL CORP S Orlando Florida 11,510 * Wayne Penn 11,142 368		177	BELL HELICOPTER TEXTRON INC Fort Worth Texas 9,863 * 9,863	
158	HAZELTINE CORPORATION Braintree Mass 11,417 * Greenlawn New York 8,278 Huntington New York 2,794 345		179	RESEARCH & DEV LABORATORIES S Culver City California 9,827 * Los Angeles California 9,662 165	
159	MARTIN MARIETTA WESTINGHSE JV Orlando Florida 11,405 * 11,405		180	SUNDSTRAND CORPORATION San Diego California 9,823 * Rockford Illinois 2,074 7,749	
161	ARINC RESEARCH CORPORATION San Diego California 11,368 * Annapolis Maryland 3,235 8,133		181	COMARCO INC Sierra Vista Arizona 9,803 * 9,803	
162	RAYTHEON SERVICE COMPANY Bath Maine 11,311 * Marlborough Mass 46- White Sands Ms New Mexico 9,878 Wright Patters Ohio 478 Dahlgren Virginia 456 545		184	C A E INDUSTRIES LTD Luke Air Force Arizona 9,739 * Williams AFB Arizona 1,658 Silver Spring Maryland 1,583 Houston Texas 165 6,333	
163	SRS TECHNOLOGIES S Huntsville Alabama 11,059 * Newport Beach California 5,671 5,388		186	AM GENERAL CORPORATION South Bend Indiana 9,344 * Livonia Michigan 3,915 5,429	
165	ADVANCED DECISION SYSTEMS S Mountain View California 10,915 * Arlington Virginia 10,865 50		187	SOFTTECH INC San Diego California 9,327 * Waltham Mass 600 Houston Texas 481 Alexandria Virginia 1,300 6,946	
166	GENERAL DYNAMICS WESTINGHSE JV Pomona California 10,800 * 10,800		188	PLANNING SYSTEMS INCORPORATED S Lowell Mass 9,182 * McLean Virginia 50 9,132	
167	HUGHES AIRCRAFT & RAYTHEON JV Los Angeles California 10,800 * 10,800		190	ASP CONSORTIUM Ontario California 9,088 * 9,088	
168	OSHKOSH TRUCK CORPORATION Oshkosh Wisconsin 10,436 * 10,436		191	GRUMMAN DATA SYSTEMS CORP Woodbury New York 9,070 * 9,070	
169	BDM MANAGEMENT SERVICES CO Kirtland AFB New Mexico 10,387 * McLean Virginia 10,288 99				

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Rank	Name of Contractor	Location of Work	Thousands of Dollars	Rank	Name of Contractor	Location of Work	Thousands of Dollars
192	WESTERN INSTRUMENT CORPORATION	S Ventura California	9,037 *	215	DYNETICS INC	S Huntsville Alabama Shalimar Florida	7,431 * 6,116 1,315
194	LITTLE ARTHUR D INC	Mass Cambridge	8,966 * 8,966	216	DYNCORP APPLIED TECHNOLOGY	7,394 * Yuma Proving G Arizona Wright Patters Ohio	6,968 426
195	TACTICAL TRUCK CORPORATION	8,957 * Livonia Michigan	8,957	218	MANTECH INTERNATIONAL CORP	7,385 * Sierra Vista Arizona Los Alamos New Mexico	1,323 248
196	CHRYSLER TECHNOLOGIES	8,870 * Eglin Air Forc Florida Dayton Ohio Richardson Texas Waco Texas Arlington Virginia	1,009 1,600 1,290 864 4,107	219	LASER SYSTEMS & RSCH CORP	S Escondido California	7,347 * 7,347
197	DRAVO CORPORATION	8,783 * Pittsburgh Penn	8,783	220	ADVANCED TECHNOLOGY INC	7,196 * El Segundo California Orlando Florida	534 50
200	FOSTER MILLER INC	S Boston Mass Waltham Mass	8,598 * 350 8,248	222	PACER SYSTEMS INC	7,119 * Panama City Florida Billerica Mass Horsham Penn	1,813 797 4,509
203	EAGLE TECHNOLOGY INC	S Palo Alto California Orlando Florida Vero Beach Florida Winter Park Florida Eatontown New Jersey Arlington Virginia McLean Virginia	8,361 * 90 500 226 554 559 1,740 4,692	225	VSE CORPORATION	6,995 * Valparaiso Florida	6,995
204	VITRONICS INC	S Eatontown New Jersey	8,350 * 8,350	226	PACCAR INC	6,957 * Bellevue Washington Kirkland Washington	1,710 5,247
205	SYSTEM DYNAMICS INC	S Huntsville Alabama Gainesville Florida	8,302 * 1,243 7,059	227	STERLING FEDERAL SYSTEMS INC	6,882 * Palo Alto California Bellevue Nebraska	38 6,844
208	S SYSTEMS CORPORATION	S Inglewood California Los Angeles Ai California Albuquerque New Mexico	7,914 * 2,075 3,303 2,536	230	NEWPORT NEWS SHPBOLDING DRYDOCK	6,756 * Charlottesvill Virginia Newport News Virginia	593 6,163
209	LOCUS INC	7,815 * State College Penn Alexandria Virginia Arlington Virginia	5,247 1,710 858	231	SIPPICAN INC	6,676 * Hull Mass Marion Mass	100 6,576
210	LORAL ELECTRONIC SYSTEMS	7,667 * New York New York	7,667	232	BABCOCK & WILCOX COMPANY THE	6,656 * New Orleans Louisiana Lynchburg Virginia	6,300 356
211	DEFENSE SYSTEMS INC	S McLean Virginia	7,639 * 7,639	233	APPLIED RESEARCH INC	S Huntsville Alabama	6,605 * 6,605
212	CINCINNATI ELECTRONICS CORP	7,619 * Cincinnati Ohio	7,619	234	AEROMET INC	S Tulsa Oklahoma Yona Marshall I	6,507 * 6,777 270-
213	QUEST RESEARCH CORPORATION	7,584 * Dayton Ohio Falls Church Virginia McLean Virginia	289 4,150 3,145	235	SYSTEMS & SIMULATIONS INC	S Tampa Florida	6,504 * 6,504
214	SONALYSTS INC	S New London Conn Waterford Conn Naval Underwat Rhode Isl Newport Rhode Isl Virginia Beach Virginia	7,471 * 951 6,235 70 180 35	236	BRUNSWICK CORPORATION	6,495 * Costa Mesa California Clearwater Florida De Land Florida Marion Virginia	2,145 965 1,632 1,753

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237	STANFORD TELECOMMUNICATIONS Santa Clara California Reston Virginia	S 6,453 * 6,073 380	260	GENERAL INSTRUMENT CORP DEL Belmont California Hicksville New York	5,685 * 5,653 32
238	THINKING MACHINES CORPORATION Chevy Chase Maryland Cambridge Mass	S 6,422 * 192 6,230	261	PARSONS RALPH M COMPANY THE Pasadena California	5,664 * 5,664
239	ANALYTIX ELECTRONIC SYSTEMS Hudson N.H.	6,280 * 6,280	263	SYSTEMS RFS APPLICATIONS CORP El Segundo California Arlington Virginia	5,584 * 1,957 3,627
241	UNIVERSAL TECHNOLOGY CORP Dayton Ohio	S 6,180 * 6,180	264	DECISION SCIENCE APPLICATIONS Arlington Virginia	S 5,564 * 5,564
242	SYSTEMS PLANNING & ANALYSIS Arlington Virginia Falls Church Virginia	S 6,141 * 250 5,891	266	SYSTEM DEVELOPMENT CORPORATION Huntsville Alabama Sunnyvale California Eatontown New Jersey Warminster Penn Fredericksburg Virginia	5,531 * 905 936 2,127 1,511 52
243	PHYSICAL RESEARCH INC Huntsville Alabama Torrance California	S 6,129 * 241 5,888	267	SYNETICS CORPORATION Hopkinton Mass Wakefield Mass	S 5,521 * 56 5,465
244	HORIZONS TECHNOLOGY INC San Diego California	S 6,081 * 6,081	269	BECHTEL NATIONAL INC San Francisco California	5,490 * 5,490
245	UNION CORPORATION Scranton Penn	6,037 * 6,037	270	DYNACORP White Sands Ms New Mexico Fort Worth Texas	5,439 * 5,288 151
246	SPIRE CORPORATION Bedford Mass	S 6,008 * 6,008	272	WALLACE & CO Cary N Carolina Fairborn Ohio	S 5,335 * 5,263 72
247	ORBITAL SCIENCES CORPORATION Fairfax Virginia	S 6,000 * 6,000	273	MAR INCORPORATED Panama City Florida Rockville Maryland	S 5,317 * 2,648 2,669
248	HILTON SYSTEMS INC Huntsville Alabama Tampa Florida Mount Arlington New Jersey	S 5,941 * 4,965 692 284	274	EBASCO SERVICES INCORPORATED New York New York	5,300 * 5,300
249	ANALYSIS & COMPUTER SYSTEMS Bedford Mass	S 5,921 * 5,921	275	DOW CHEMICAL COMPANY THE Midland Michigan Saginaw Michigan	5,297 * 2,063 3,234
250	SEMCOR INC Huntsville Alabama Mount Laurel New Jersey Warminster Penn	S 5,843 * 49 3,782 2,012	277	XONTECH INC Los Angeles California	S 5,254 * 5,254
252	ORINCON CORPORATION Placentia California San Diego California	S 5,825 * 289 5,536	278	OLIN CORPORATION Stanford Conn Saint Petersburg Florida East Alton Illinois	5,234 * 1,532 275 3,427
253	AUTOMATED SCIENCES GROUP INC Huntsville Alabama Silver Spring Maryland Dahlgren Virginia	S 5,800 * 5,470 296 34	279	PLESSEY DYNAMICS CORP Wayne New Jersey	5,199 * 5,199
255	HUGHES TRAINING SYS INC Arlington Texas	5,774 * 5,774	280	RESEARCH ANALYSIS & MAINT El Paso Texas	S 5,148 * 5,148
256	INTEGRATED SYSTEMS ANALYSTS Chula Vista California San Diego California New London Conn Arlington Virginia Pleasant Gap Virginia	S 5,761 * 1,628 1,067 115 2,851 100	282	WALLACE T H INC Indian Harbour Florida Melbourne Florida Patrick AFB Florida Springfield Virginia	S 5,090 * 2,612 774 57 1,647
258	INNOVATIVE INFORMATION SYS Los Angeles California	S 5,697 * 5,697	283	MCDONNELL DOUGLAS INCO INC Cheyenne Mtn C Colorado Tampa Florida Chesapeake Virginia	5,071 * 3,557 785 729
259	STERIMATICS CORPORATION Bedford Mass	5,688 * 5,688			

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284	BERKELEY RESEARCH ASSOCIATES Berkeley California Fairfax Virginia Springfield Virginia	S 5,029 * 2,650 80 2,299	311	CAS INC Huntsville Alabama	S 4,306 * 4,306
288	PHYSICAL SCIENCES INC Andover Mass	S 4,909 * 4,909	312	ELECTRONIC DECISIONS INC Urbana Illinois	S 4,268 * 4,268
289	ELECTROMAGNETIC LAUNCH RES Hudson Mass	4,903 * 4,903	313	LOS ALAMOS TECHNICAL ASSOC INC Los Alamos New Mexico	S 4,248 * 4,248
290	CALIFORNIA RES & TECHNOLOGY Los Angeles California Princeton New Jersey	4,888 * 4,745 143	315	FIBERTEK INC Herndon Virginia	S 4,170 * 4,170
291	VECTOR RESEARCH COMPANY INC Bethesda Maryland	S 4,789 * 4,789	316	CTA INCORPORATED Ridgecrest California Englewood Colorado Lanham Maryland Dayton Ohio	S 4,159 * 3,040 522 303 294
292	ROHM & HAAS COMPANY Philadelphia Penn	4,774 * 4,774	317	LITTON INDUSTRIES INC Tempe Arizona Los Angeles California Lexington Mass	4,143 * 105 100 3,938
293	ATLANTIC AEROSPACE ELECTRONICS Greenbelt Maryland Waltham Mass	S 4,757 * 266 4,491	318	APPLIED MEASUREMENT SYSTEMS New London Conn Waterford Conn Fort Lauderdale Florida Hollywood Florida Homestead AFB Florida Middletown Rhode Isl	S 4,124 * 1,223 285 1,187 628 646 155
294	MAC AULAY BROWN INC Shallmar Florida Dayton Ohio Wright Patters Ohio	S 4,724 * 184 3,640 900	319	APPLIED TECHNOLOGY ASSOCIATES Orlando Florida Albuquerque New Mexico	S 4,083 * 50 4,033
296	SIMULATION TECHNOLOGIES INC Huntsville Alabama Dayton Ohio	S 4,709 * 1,150 3,559	320	INTRASPACE CORP North Salt Lak Utah Salt Lake City Utah	S 4,042 * 719 3,323
297	UNITED INTERNATIONAL ENGRG Huntsville Alabama Albuquerque New Mexico	S 4,656 * 500 4,156	321	ADVANCED TECHNOLOGY & RESEARCH Laurel Maryland	S 4,018 * 4,018
299	TETRA TECH INC San Bernardino California	S 4,620 * 4,620	322	KETRON INC Towson Maryland Malvern Penn Philadelphia Penn Warminster Penn	S 3,901 * 893 2,868 100 40
301	RMS TECHNOLOGIES INCORPORATED Lexington Mass Irevose Penn	S 4,593 * 323 4,270	323	I S T INC Pullman Washington	S 3,869 * 3,869
302	KAMAN AEROSPACE CORPORATION Bloomfield Conn	4,546 * 4,546	324	PHOTON RESEARCH ASSOCIATES Placentia California San Diego California Cambridge Mass	S 3,845 * 1,383 2,402 60
304	QUESTECH INC Washington D.C. Dayton Ohio Falls Church Virginia McLean Virginia Vienna Virginia	4,501 * 119 1,077 1,146 1,963 196	325	ANALYTICS INCORPORATED Edgewood Maryland Tinton Falls New Jersey Dayton Ohio Willow Grove Penn Fairfax Virginia Manassas Virginia	3,812 * 79 267 300 2,322 179 665
305	NATION INC Oceanport New Jersey Shrewsbury New Jersey	S 4,471 * 3,249 1,222	328	APPLIED RESEARCH ASSOC INC Albuquerque New Mexico Raleigh N Carolina	S 3,795 * 2,647 1,148
307	ARETE ASSOCIATES Los Angeles California Arlington Virginia	S 4,440 * 3,940 500	329	COMPUTER RESOURCE ENGRG ASSOC Columbia Maryland Chantilly Virginia Warrenton Virginia GERMANY, F	3,756 * 348 650 1,587 1,171
308	ANDRULIS RESEARCH CORP Bethesda Maryland Salt Lake City Utah	S 4,421 * 2,415 2,006			
309	I A P RESEARCH INC Dayton Ohio	S 4,408 * 4,408			

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for RDT&E to Business Firms: FY 1989**

Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
330	SOUTHERN RESEARCH TECHNOLOGIES Birmingham Alabama	S 3,733 * 3,733	358	WYLE LABORATORIES El Segundo California Los Angeles California Hampton Virginia	3,314 * 596 347 2,371
331	SYSTEMS & ELECTRONICS INC Rolling Meadow Illinois	S 3,727 * 3,727	359	SCIENCE RESEARCH LABORATORY Oakley California Somerville Mass	S 3,303 * 50 3,253
333	APTEK INC Colorado Sprin Colorado	S 3,700 * 3,700	360	METALWORKING TECHNOLOGY INC Johnstown Penn	S 3,302 * 3,302
334	STATISTICA INC Columbia Maryland	S 3,680 * 3,680	361	DOSS AVIATION INC Shepherd Texas	S 3,276 * 3,276
335	ARMAMENT SYSTEMS INC Anaheim California Fort Walton Be Florida Aberdeen Maryland	S 3,666 * 1,743 1,311 612	362	TOYON RESEARCH CORP Goleta California Santa Barbara California	S 3,262 * 2,537 725
336	DU PONT E I DE NMOURS COMPANY Wilmington Delaware	3,659 * 3,659	364	ECONOMICS TECHNOLOGY ASSOC Culver City California Point Mugu Nav California San Diego California	S 3,232 * 2,075 650 507
338	ORION INTL TECHNOLOGIES Albuquerque New Mexico White Sands Ms New Mexico	S 3,653 * 2,812 841	365	MIS SYSTEMS CORPORATION Eden Prairie Minnesota Minneapolis Minnesota	S 3,220 * 1,220 2,000
340	TELECOMMUNICATION SCIENCE ASSOC San Diego California Dallas Texas	S 3,648 * 3,281 367	366	AEROLIFT INC Tillamook Oregon Dallas Texas	S 3,217 * 2,329 888
341	ENCORE COMPUTER CORPORATION Marlborough Mass	S 3,617 * 3,617	367	I R T CORPORATION San Diego California	S 3,215 * 3,215
342	TG BAUER ASSOCIATES Falls Church Virginia	S 3,593 * 3,593	369	DYNAMICS RESEARCH CORPORATION San Diego California Wilmington Mass Newport Rhode Isld	S 3,214 * 37 2,612 565
343	NORDEN SYSTEMS INC Santa Ana California Norwalk Conn Gaithersburg Maryland Melville New York	3,565 * 278 2,253 180- 1,214	371	MANAGEMENT CONSULTING & RES Burlington Mass Dayton Ohio Falls Church Virginia	S 3,175 * 83 3,052 40
346	N K F ENGINEERING INC San Diego California Columbia Maryland Arlington Virginia Reston Virginia	S 3,524 * 866 50 635 1,973	372	SCIENCE & TECHNOLOGY CORP Las Cruces New Mexico Arlington Virginia Hampton Virginia	S 3,137 * 792 63 2,282
347	OPTIMETRICS INC Ann Arbor Michigan Fairborn Ohio Hampton Virginia	S 3,518 * 2,745 662 111	373	EASTMAN KODAK COMPANY Rochester New York	S 3,121 * 3,121
350	ODYSSEY RESEARCH ASSOCIATES Ithaca New York	S 3,470 * 3,470	375	TINSLEY LABORATORIES INC Richmond California	S 3,101 * 3,101
351	DBA SYSTEMS INC Melbourne Florida	S 3,467 * 3,467	376	LASER SYSTEMS LABORATORY San Diego California	3,095 * 3,095
352	MECHANICAL TECHNOLOGY INC Latham New York	3,449 * 3,449	377	WESTON ROY F INC West Chester Penn	3,090 * 3,090
353	CROSS SYSTEMS INC Atlanta Georgia	3,407 * 3,407	378	ENGINEERING & PROF SVCS Tinton Falls New Jersey	S 3,084 * 3,084
354	COCH TST ENGR Albuquerque New Mexico	3,378 * 3,378	379	KEYSTONE COMPUTER ASSOCIATES Fort Washington Penn Warminster Penn Portsmouth Rhode Isld Arlington Virginia	S 3,067 * 2,821 68 128 50
355	FEMME COMP INC Manassas Virginia	S 3,373 * 3,373			
356	AUTOMATION RES SYSTEMS LTD Alexandria Virginia	S 3,366 * 3,366			

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**Table 2. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to Business Firms: FY 1989**

Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
381	INTERSIL INC Research Trian N Carolina	2,996 * 2,996	400	THERMO ELECTRON TECH CORP San Diego California	2,648 * 2,648
382	EAGLE PITCHER INDUSTRIES INC El Segundo California Colorado Sprin Colorado Lenexa Kansas Joplin Missouri Miami Oklahoma	2,995 * 1,223 497 227 1,134 86-	401	PHYSICAL OPTICS CORPORATION Torrance California	S 2,631 * 2,631
383	WILLIAMS INTERNATIONAL CORP Walled Lake Michigan	2,984 * 2,984	402	NATIVE AMERICAN SERVICE ASSN Huntsville Alabama	S 2,629 * 2,629
385	DAVID SARNOFF RESEARCH CENTER San Jose California Princeton New Jersey	2,942 * 1,273 1,669	405	VARIAN ASSOCIATES INC Marina del Ray California Palo Alto California Santa Clara California Beverly Mass Oceanport New Jersey Dallas Texas	2,551 * 186- 2,511 882 85 28 769-
386	EMERSON ELECTRIC CO St. Louis Missouri	2,903 * 2,903	406	WADDAN SYSTEMS Los Angeles California	S 2,550 * 2,550
387	EVALUATION RESEARCH CORP Elliston-Lafay Virginia Fairfax Virginia	2,873 * 100 2,773	407	HUGHES ASSOCIATES INC Washington D.C. Wheaton-Glenmo Maryland	S 2,528 * 403 2,125
389	SYNDETIX INC White Sands Ms New Mexico	S 2,844 * 2,844	408	SCOPE INCORPORATED Reston Virginia	2,519 * 2,519
390	GOULD INC Point Mugu PMT California Glen Burnie Maryland Cleveland Ohio	2,812 * 1,740 245 827	409	ORLANDO TECHNOLOGY INC Eglin Air Forc Florida Longwood Florida Orlando Florida Shalimar Florida	S 2,513 * 225 55 46 2,187
391	ELECTRONIC ASSOCIATES INC Redstone Arsen Alabama West Long Bran New Jersey	S 2,791 * 1,163 1,628	410	SCIENTIFIC RESEARCH ASSOC INC Glastonbury Conn	S 2,512 * 2,512
392	L GARDE INC Newport Beach California	S 2,775 * 2,775	411	INTEL CORPORATION Beaverton Oregon	2,500 * 2,500
393	E C CORPORATION OF OAK RIDGE Huntsville Alabama Fort Knox Kentucky Knoxville Tennessee Oak Ridge Tennessee	S 2,736 * 1,135 1,436 120 45	412	WEIDLINGER ASSOCIATES INC Los Altos California Palo Alto California New York New York	S 2,500 * 73 530 1,897
394	LOGISTICS MANAGEMENT ENGRG China Lake NWC California Annapolis Maryland Warminster Penn	S 2,735 * 1,222 755 758	413	TRUAX ENGINEERING Saratoga California	S 2,479 * 2,479
395	ADVANCED RES & APPLICATIONS Sunnyvale California	S 2,670 * 2,670	414	FABEL SYS CORP Malabar Florida	S 2,473 * 2,473
396	CACI INC Washington D.C. Fort Bragg N Carolina San Antonio Texas Arlington Virginia Fairfax Virginia	2,667 * 532 294 685 655 501	415	TITAN SYSTEMS INC San Diego California GERMANY, F	2,465 * 1,649 816
397	EDO CORPORATION Shelton Conn New York New York	2,660 * 127 2,533	416	KNOWLEDGE SYSTEMS CONCEPTS Mountain View California Wichita Kansas Rome New York Falls Church Virginia	S 2,443 * 370 175 1,607 291
398	KRUG INTERNATIONAL CORPORATION Dayton Ohio San Antonio Texas	2,657 * 100 2,557	418	KDI PRECISION PRODUCTS INC Circleville Ohio	2,405 * 2,405
399	CARTWRIGHT ELECTRONICS INC Fullerton California	S 2,656 * 2,656	419	LOCKHEED ENGRG & MGT SVCS CO Dugway Proving Utah	2,400 * 2,400
			420	EPOCH ENGINEERING INC Gaithersburg Maryland	S 2,399 * 2,399
			422	AERODYNE RESEARCH INC Bedford Mass Billerica Mass	S 2,384 * 60 2,324

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Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
423	INTERNATIONAL SOFTWARE SYSTEMS Austin Texas	S 2,381 * 2,381	448	DEERE JOHN TECHNOLOGIES INTL Woodbridge New Jersey	2,123 * 2,123
424	IRVINE SENSORS CORPORATION Huntsville Alabama Costa Mesa California Santa Ana California	S 2,378 * 300 2,026 52	449	SYSTRAN CORP Dayton Ohio	S 2,121 * 2,121
427	CONTRAVES GOERZ CORPORATION Boston Mass Koppel Penn Pittsburgh Penn	2,366 * 446 429 1,491	450	COMPRHENSIVE TECHNOLOGIES INTL Chantilly Virginia	S 2,109 * 2,109
428	FRIED D L ASSOCIATES INC Placentia California	S 2,364 * 2,364	451	GEOMET INC Gaithersburg Maryland Germantown Maryland	2,105 * 272 1,833
429	ENCORE CORPORATION Marlborough Mass	S 2,360 * 2,360	452	DATA DESIGN LABORATORIES Chantilly Virginia	2,093 * 2,093
430	ELECTRODYNAMICS INC Rolling Meadow Illinois	2,344 * 2,344	453	FRONTIER ENGINEERING INC Stillwater Oklahoma	S 2,093 * 2,093
431	TEXTRON INC Wasepi Michigan Buffalo New York Wheatfield New York	2,342 * 450 1,810 82	455	VISIDYNE INC Burlington Mass	S 2,071 * 2,071
433	PHYSICAL DYNAMICS INC Placentia California San Diego California Arlington Virginia Bellevue Washington	S 2,337 * 57 49 1,219 1,012	456	J W P INC Long Beach California Colorado Sprin Colorado	S 2,066 * 1,119 947
434	METRICA INC Bryan Texas	S 2,324 * 2,324	457	B K DYNAMICS INC San Diego California Washington D.C. Rockville Maryland	S 2,064 * 93 75 1,896
435	JAMIESON SCIENCE & ENGINEERING Bethesda Maryland	S 2,318 * 2,318	458	SEMA INC Falls Church Virginia	S 2,060 * 2,060
437	HAMPSHIRE INSTRUMENTS INC Marlborough Mass	S 2,313 * 2,313	459	ODETICS INC Anaheim California	S 2,056 * 2,056
438	CENTURY COMPUTING INC Laurel Maryland Wright Patters Ohio	S 2,273 * 1,999 274	460	HYPRES INC Elmsford New York	S 2,052 * 2,052
439	B D SYSTEMS INC Torrance California	S 2,265 * 2,265	461	TECHNICAL & MGT SVCS CORP Calverton Maryland Suitland Maryland Oceanport New Jersey Dayton Ohio	S 2,040 * 96 331 1,268 345
440	ADVANCED TECHNOLOGY SYSTEMS Vienna Virginia	S 2,235 * 2,235	463	HADRON INC Vienna Virginia	S 2,029 * 2,029
442	MANDEX INC Yuma Proving G Arizona Springfield Virginia	S 2,219 * 1,332 887	464	SYGNETRON PROTECTION SYSTEMS Cape Canaveral Florida	S 2,025 * 2,025
443	C V D INCORPORATED Woburn Mass	2,212 * 2,212	465	REMINGTON ARMS COMPANY INC Ilion New York	2,005 * 2,005
444	LEADING SYSTEMS INC Irvine California	S 2,200 * 2,200	466	SYSTEMS & LOGISTICS CORP San Bernardino California Torrance California	S 2,005 * 1,692 313
445	INTERACTIVE TV COMPANY Arlington Virginia	2,195 * 2,195	467	KESTREL INSTITUTE Palo Alto California	S 1,997 * 1,997
446	EG&G INC Salem Mass Las Vegas Nevada	2,177 * 143 2,034	468	INTEGRAL SYSTEMS INC East Pines Maryland Lanham Maryland	S 1,990 * 54 1,936
447	CELCO TOOL & ENGINEERING Summit New Jersey	2,170 * 2,170	469	SUPERCONDUCTOR TECHNOLOGIES Goleta California Santa Barbara California	S 1,982 * 1,526 456

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Rank	Name of Contractor	Location of Work	Thousands of Dollars	Rank	Name of Contractor	Location of Work	Thousands of Dollars
471	E I C LABORATORY INC	Norwood Mass	S 1,960 *	495	TECHDYN SYSTEMS CORPORATION	Springfield Virginia	S 1,827 *
			1,960				1,827
472	TRACOR FLIGHT SYSTEMS INC	Newport Beach California	1,958 *	496	SATCON TECHNOLOGY CORPORATION	Cambridge Mass	S 1,822 *
			1,958				1,822
473	OPTRON SYSTEMS INC	Bedford Mass	S 1,949 *	497	A P A OPTICS INC	Blaine Minnesota	S 1,819 *
		Newton Mass	1,713				1,819
		Waltham Mass	161	498	RECON & OPTICAL INC	Barrington Illinois	1,819 *
			75				1,819
474	SCIENCE & ENGINEERING ASSOC	Denver Colorado	S 1,941 *	499	SUMARIA SYSTEMS INC	Wakefield Mass	S 1,805 *
		Albuquerque New Mexico	75				1,805
		Cardenas New Mexico	1,817	500	OCEAN DATA SYSTEMS INC	Rockville Maryland	S 1,801 *
			49				1,801
475	AHNTech INC	San Diego California	S 1,939 *			TOTAL	19,763,298
			1,939				
476	P E I ASSOCIATES INC	Huntsville Alabama	1,939 *				
		Cincinnati Ohio	68				
			1,871				
477	DECISION SCIENCE CONSORTIUM	Reston Virginia	S 1,932 *				
			1,932				
479	GEODYNAMICS CORPORATION	Santa Barbara California	S 1,924 *				
			1,924				
480	TS INFOSYSTEMS INC	Eglin Air Forc Florida	S 1,923 *				
		Lanham Maryland	208				
			1,715				
481	TECHNOLOGY DEVELOPMENT CORP	Huntsville Alabama	S 1,912 *				
			1,912				
482	T S C INC	Santa Monica California	1,906 *				
		Salida Colorado	1,637				
		New London Conn	61				
			208				
483	ALPHATECH INC	Burlington Mass	S 1,905 *				
			1,905				
485	SCIENCE & TECHNOLOGY ASSOC	Arlington Virginia	S 1,890 *				
			1,890				
486	MULTI ELECTRIC MFG INC	Chicago Illinois	S 1,886 *				
			1,886				
487	TECOLOTE RESEARCH INC	Santa Barbara California	S 1,881 *				
		Bedford Mass	1,379				
		Arlington Virginia	150				
			352				
490	GENERAL APPLIED SCIENCE	Ronkonkoma New York	S 1,864 *				
			1,864				
491	R J O ENTERPRISES INC	Lanham Maryland	S 1,859 *				
		Bedford Mass	1,317				
		Dayton Ohio	173				
		Falls Church Virginia	203				
			166				
492	PRESEARCH INCORPORATED	Panama City Florida	1,855 *				
		Fairfax Virginia	672				
			1,183				
494	LANXIDE CORP	Newark Delaware	S 1,830 *				
			1,830				

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**Table 3. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to Educational and Nonprofit Institutions: FY 1989**

Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
16	MASSACHUSETTS INST OF TECHNOLOGY Boston Mass Cambridge Mass Lexington Mass	410,578 * 1,569 30,070 378,939	75	STANFORD LEONARD JUNIOR UNIV Stanford California Princeton New Jersey	32,192 * 32,047 145
17	MITRE CORPORATION Bedford Mass McLean Virginia	384,216 * 381,144 3,072	76	ANALYTIC SERVICES INC Colorado Spring Colorado Arlington Virginia Fort Belvoir Virginia	32,078 * 678 31,257 143
19	JOHNS HOPKINS UNIVERSITY Baltimore Maryland Laurel Maryland	327,647 * 3,589 324,058	77	GEORGIA TECH RESEARCH CORP Eglin Air Force Florida Atlanta Georgia San Antonio Texas	31,945 * 180 31,691 74
21	AEROSPACE CORPORATION El Segundo California	301,430 * 301,430	78	UTAH STATE UNIVERSITY Logan Utah	31,705 * 31,705
43	ILLINOIS RESEARCH INSTITUTE Sacramento California Colorado Spring Colorado Chicago Illinois Chicago O'Hare Illinois Lanham Maryland Rochester New York Rome New York Syracuse New York Warminster Penn Oak Ridge Tennessee	78,151 * 110 27 68,835 356 1,426 27 225 385 50 6,710	83	UNIVERSITY OF MINNESOTA Duluth Minnesota Minneapolis Minnesota St. Paul Minnesota	30,255 * 453 515 29,287
51	UNIVERSITY OF CALIFORNIA Angels Camp California Berkeley California Davis California Irvine California Livermore California Los Angeles California Oakland California Placentia California Riverside California San Diego California San Francisco California Santa Barbara California Santa Cruz California Torrance California	56,507 * 68 11,716 1,233 2,911 235 5,996 340 7,381 343 12,516 1,955 10,398 1,247 168	85	UNIVERSITY OF SOUTHERN CALIF Los Angeles California San Diego California	29,363 * 29,183 180
53	DRAPER CHARLES STARK LAB INC Boston Mass Cambridge Mass	54,986 * 1,048 53,938	88	BATTELLE MEMORIAL INSTITUTE Huntsville Alabama Scottsdale Arizona Los Angeles California Menlo Park California Mountain View California San Diego California Santa Monica California Fort Collins Colorado Woodbridge Conn Washington D.C. Gainesville Florida Indianapolis Florida Orlando Florida Tampa Florida Atlanta Georgia Norcross Georgia Chicago Illinois Park Forest Illinois Skokie Illinois Lafayette Indiana Baton Rouge Louisiana Aberdeen Prov Maryland Elkton Maryland Frederick Maryland Gaithersburg Maryland Concord Mass Wilbraham Mass Detroit Michigan Houghton Michigan Midland Michigan North Muskegon Michigan Minnetonka Minnesota St Paul Minnesota Las Vegas Nevada Hollis N.H. Nashua N.H. Englewood Clif New Jersey Millburn New Jersey Morristown Junct New Jersey Norwood New Jersey Oceanport New Jersey Princeton New Jersey Albuquerque New Mexico Las Cruces New Mexico Albany New York New York New York White Plains New York	222 41 32 74 25 94 32 101 75 37 81 76 47 53 107 112 123 26 32 77 57 1,392 56 62- 44 32 45 46 36 32 81 126 26- 137 54 117 27 39 31 36 27 38 33 84 41 64 29
54	PENNSYLVANIA STATE UNIV THE State College Penn	53,950 * 53,950			
57	RAND CORPORATION Los Angeles California Santa Monica California	50,953 * 24,874 26,079			
58	CARNEGIE MELLON UNIVERSITY Pittsburgh Penn	49,023 * 49,023			
63	SRI INTERNATIONAL Menlo Park California Melbourne Florida Arlington Virginia	45,624 * 45,356 165 103			
65	INSTITUTE FOR DEF ANALYSES Alexandria Virginia	42,811 * 42,811			
74	UNIVERSITY OF TEXAS SYSTEM Lincoln Nebraska Arlington Texas Austin Texas Dallas Texas El Paso Texas Galveston Texas Richardson Texas San Antonio Texas	33,362 * 75 449 30,430 298 350 512 1,043 205			

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Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
	BATTELLE MEMORIAL INSTITUTE		178	GEORGIA TECH RESEARCH INST Atlanta Georgia	9,857 * 9,857
	Pinehurst N Carolina	47	182	UNIVERSITY OF NEW MEXICO	9,759 *
	Research Trian N Carolina	62		Albuquerque New Mexico	1,643
	Columbus Ohio	22,699		Kirtland AFB New Mexico	7,970
	Worthington Ohio	63		Las Cruces New Mexico	96
	Yellow Springs Ohio	50		Richardson Texas	50
	Norman Oklahoma	238	183	UNIVERSITY OF MARYLAND	9,743 *
	Tulsa Oklahoma	77		Washington D.C.	108
	Eugene Oregon	96		Adelphi Maryland	774
	Bethlehem Penn	46		Baltimore Maryland	1,846
	Philadelphia Penn	34		Cambridge Maryland	72
	Pittsburgh Penn	30		College Park Maryland	6,698
	Columbia S Carolina	30		CHILE	245
	Nashville Tennessee	55	185	RIVERSIDE RESEARCH INSTITUTE	9,474 *
	Arlington Texas	46		Bedford Mass	228
	Austin Texas	55		New York New York	9,246
	Boerne Texas	27	189	CALIFORNIA INST OF TECHNOLOGY	9,121 *
	Dallas Texas	113		Pasadena California	9,121
	El Paso Texas	171	198	RESEARCH TRIANGLE INSTITUTE	8,768 *
	Houston Texas	49		Melbourne Florida	175
	Alexandria Virginia	89		Raleigh N Carolina	319
	Fairfax Virginia	40		Research Trian N Carolina	8,274
	Leesburg Virginia	27	199	SYRACUSE UNIVERSITY	8,746 *
	Springfield Virginia	142		Auburn Alabama	100
	Vienna Virginia	279		Boston Mass	30
	Woodbridge Virginia	25		Syracuse New York	8,616
	Richland Washington	161	202	UNIVERSITY OF MASSACHUSETTS	8,551 *
	Seattle Washington	65		Amherst Mass	7,761
	CANADA	104		Worcester Mass	790
103	UNIVERSITY OF WASHINGTON Seattle Washington	22,921 * 22,921	206	COLUMBIA UNIVERSITY	8,295 *
110	UNIVERSITY OF DAYTON	20,918 *		New York New York	8,030
	Williams AFB Arizona	1,716		Oyster Bay New York	214
	Edwards AFB California	883		Palisades New York	51
	Dayton Ohio	16,894	207	UNIVERSITY OF MICHIGAN	8,083 *
	Montgomery Ohio	134		Washington D.C.	47
	Wright Patters Ohio	1,291		Ann Arbor Michigan	7,770
123	NEW MEXICO STATE UNIVERSITY	17,811 *		Lansing Michigan	266
	Las Cruces New Mexico	10,889	217	NATIONAL ACADEMY SCIENCES USA	7,389 *
	White Sands Ms New Mexico	6,922		San Diego California	100
125	UNIVERSITY OF ILLINOIS	16,958 *		Washington D.C.	7,289
	Caldwells Illinois	28	221	UNIVERSITY OF ALABAMA	7,184 *
	Champaign Illinois	9,341		Birmingham Alabama	753
	Chicago Illinois	3,371		Huntsville Alabama	6,114
	Savoy Illinois	76		Tuscaloosa Alabama	317
	Urbana Illinois	4,142	223	UNIVERSITY OF CENTRAL FLORIDA	7,043 *
128	LOGISTICS MGT INSTITUTE	16,321 *		Orlando Florida	7,043
	Bethesda Maryland	16,321	224	SOUTHWEST RESEARCH INSTITUTE	6,998 *
138	SOUTH CAROLINA RES AUTHORITY	14,225 *		San Antonio Texas	6,998
	Charleston S Carolina	14,225	228	UNIVERSITY OF ARIZONA	6,864 *
140	WOODS HOLE OCNRPIC INSTUTE	14,071 *		Tempe Arizona	129
	Woods Hole Mass	14,071		Tucson Arizona	6,735
150	CORNELL UNIVERSITY	12,095 *	229	UNIVERSITY OF PENNSYLVANIA	6,851 *
	Ithaca New York	11,950		Philadelphia Penn	6,851
	New York New York	145			
164	ENVIRONMENTAL RESEARCH	11,045 *			
	Ann Arbor Michigan	11,045			
174	SOUTHERN RESEARCH INSTITUTE	10,015 *			
	Birmingham Alabama	10,015			

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Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
240	SALK INST FOR BLGICAL STUDIES San Diego California Swiftwater Penn	6,221 * 163 6,058	306	UNIVERSITY OF ROCHESTER Rochester New York	4,465 * 4,465
251	MERCER UNIVERSITY Macon Georgia Robins AFB Georgia	5,825 * 5,425 400	310	OREGON STATE UNIVERSITY Corvallis Oregon	4,323 * 4,323
254	BROWN UNIVERSITY Providence Rhode Isl	5,779 * 5,779	314	TEXAS A & M UNIV SYS THE Arlington Texas College Statio Texas	4,225 * 550 3,675
257	PURDUE UNIVERSITY Lafayette Indiana Purdue Unvers Indiana West Lafayette Indiana	5,743 * 2,721 79 2,943	326	YALE UNIVERSITY New Haven Conn	3,800 * 3,800
262	NORTH CAROLINA STATE UNIV Raleigh N Carolina	5,609 * 5,609	332	COLORADO STATE UNIVERSITY Fort Collins Colorado	3,707 * 3,707
265	SOUTHEASTIN CTR ELECTR ENG ED Long Beach California Orlando Florida Saint Cloud Florida Tampa Florida Augusta Kansas Bedford Mass Boston Mass San Antonio Texas Salt Lake City Utah	5,548 * 130 1,875 2,218 588 45 305 113 98 176	345	UNIVERSITY OF COLORADO Boulder Colorado Colorado Sprin Colorado Denver Colorado	3,537 * 2,577 195 765
271	DUKE UNIVERSITY Beaufort N Carolina Duke Universit N Carolina Durham N Carolina	5,413 * 408 90 4,915	348	CLEMSON UNIVERSITY Clemson Univer S Carolina	3,508 * 3,508
276	SOUTHERN METHODIST UNIVERSITY Dallas Texas	5,280 * 5,280	349	UNIVERSITY OF VIRGINIA Austin Texas Charlottesvill Virginia	3,473 * 209 3,264
281	BOSTON UNIVERSITY Boston Mass Springfield Mass	5,127 * 1,701 3,426	357	MICHIGAN DEPT PUBLIC HEALTH Lansing Michigan	3,316 * 3,316
285	PRINCETON UNIVERSITY Princeton New Jersey	5,019 * 5,019	363	NYSERNET INC Syracuse New York	3,240 * 3,240
286	STATE UNIVERSITY OF NEW YORK Albany New York Binghamton New York Buffalo New York Stony Brook New York	5,019 * 3,675 44 1,099 201	368	OHIO STATE UNIVERSITY Columbus Ohio Urbancrest Ohio	3,215 * 3,152 63
287	RENSSELAER POLYTECHNIC INST Troy New York	4,985 * 4,985	370	OKLAHOMA STATE UNIVERSITY Eglin Air Forc Florida Stillwater Oklahoma Fairfax Virginia	3,200 * 2,263 881 56
295	VIRGINIA PLYTCHNIC INST ST UNI Blacksburg Virginia Dahlgren Virginia	4,715 * 4,584 131	374	AUBURN UNIVERSITY Auburn Alabama Huntsville Alabama	3,117 * 3,036 81
298	UNIVERSITY OF FLORIDA Pussels Corner Florida Gainesville Florida	4,652 * 345 4,307	380	NEW MXICO INST OF MIN TCHNLGY Socorro New Mexico	3,034 * 3,034
300	UNIVERSITY OF WISCONSIN SYSTEM Kenosha Wisconsin Madison Wisconsin Milwaukee Wisconsin	4,606 * 89 3,761 756	384	NEW YORK UNIVERSITY New York New York North Hempstea New York	2,943 * 2,883 60
303	HARVARD UNIVERSITY Cambridge Mass Southboro Mass	4,520 * 4,408 112	388	UNIVERSITY OF NORTH CAROLINA Chapel Hill N Carolina	2,865 * 2,865
			403	CASE WESTERN RESERVE UNIV Cleveland Ohio Wright Patters Ohio	2,625 * 1,990 635
			417	POLYTECHNIC UNIV OF NEW YORK Farmingdale New York New York New York	2,433 * 855 1,578
			421	AMERICAN SOC FOR ENGRG EDCTON Washington D.C.	2,389 * 2,389

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425	NORTHWESTERN UNIVERSITY Evanston Illinois	2,372 * 2,372			
426	UNIVERSITY OF PITTSBURGH Pittsburgh Penn	2,367 * 2,367			
432	UNIVERSITY OF RHODE ISLAND Kingston Rhode Isld Narragansett Rhode Isld Saunderstown Rhode Isld	2,341 * 1,941 362 38			
436	NORTHEASTERN UNIVERSITY CORP Bondsboro Mass Boston Mass	2,314 * 96 2,218			
441	UNIVERSITY OF CONNECTICUT Farmington Conn Storrs Conn	2,226 * 88 2,138			
462	UNIVERSITY OF CINCINNATI Cambridge Mass Cincinnati Ohio	2,030 * 722 1,308			
470	RUTGERS THE STATE UNIVERSITY New Brunswick New Jersey Piscataway New Jersey	1,968 * 871 1,097			
478	WENTWORTH INST OF TECHNOLOGY Boston Mass	1,927 * 1,927			
484	UNIVERSITY OF HAWAII Honolulu Hawaii	1,895 * 1,895			
489	TEXAS TECH UNIVERSITY Lubbock Texas	1,877 * 1,877			
	TOTAL	2,567,336			

- = Minus Amount (Cancellations Exceed New Awards)  
S = Small Business

**Table 4. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to Foreign Contractors: FY 1989**

Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
69	ELEKTRO RADIO KLEIN ISRAEL	37,280 * 37,280			
101	ROLLS ROYCE INC UNITED KIN	23,161 * 23,161			
105	RAM SYS GMBH GERMANY, F	22,510 * 22,510			
135	UNITED KINGDOM MINISTRY OF DEF UNITED KIN	14,848 * 14,848			
153	ISRAEL AIRCRAFT INDUSTRIES ISRAEL	11,851 * 11,851			
160	ROYAL NORWEGIAN NAVAL MATERIAL NORWAY	11,371 * 11,371			
193	CANADIAN COMMERCIAL CORP CANADA	9,004 * 9,004			
201	MARTIN BAKER AIRCRAFT CO LTD UNITED KIN	8,565 * 8,565			
268	TADIRAN ELECTRONIC INDUSTRIES ISRAEL	5,493 * 5,493			
327	MESSERSCHMITT BOELKOW BLOHM GERMANY, F	3,797 * 3,797			
339	AIM COMPUTER GMBH GERMANY, F	3,652 * 3,652			
404	CENTRE NATIONAL ETUDES SPATI FRANCE	2,576 * 2,576			
488	CULHAM LABORATORY UNITED KIN	1,880 * 1,880			
493	BUNDESAMI FUER WEHRTECHNIK GERMANY, F	1,836 * 1,836			
	TOTAL	157,824			

- = Minus Amount (Cancellations Exceed New Awards)  
S = Small Business

**Table 5. Net Value of DOD Prime Contract Awards Over \$25,000  
for RDT&E to U.S. Government Agencies: FY 1989**

Rank	Name of Contractor Location of Work	Thousands of Dollars	Rank	Name of Contractor Location of Work	Thousands of Dollars
344	UNITED STATES DEPT OF COMMERCE	3,544 *			
	Boulder Colorado	688			
	Washington D.C.	285			
	Gaithersburg Maryland	2,182			
	Rockville Maryland	70			
	National Space Miss	70			
	Seattle Washington	249			
454	UNITED STATES DEPT ENERGY	2,089 *			
	Berkeley California	50			
	Oakland California	313			
	Washington D.C.	400			
	Argonne Illinois	230			
	Syracuse New York	50			
	Oak Ridge Tennessee	238			
	Richland Washington	808			
	TOTAL	5,633			

- = Minus Amount (Cancellations Exceed New Awards)  
S = Small Business